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ABSTRACT

The Communication Theory and Methodology section of the Proceedings contains the following 17 papers: "Extra! Extra! Read All About It: Attention and Memory for Deviant and Imagistic Headlines" (Jennifer Borse and others); "Refining a Uses and Gratification Scale for Television Viewing" (Jennifer Greer, Cyndi Frisby, and David Harris Halpern); "Beyond Sex: The Political Gender Gap in the 1996 Presidential Election" (B. Carol Eaton); "Television Portrayals and African American Stereotypes: Examination of Televison Effects When Direct Contact is Lacking" (Yuki Fujioka); "Fearing the 'Mean World': Exploring the Victim-Offender Relationship's Influence on Fear of Violent Crime" (James McQuivey); "When an Edit Is an Edit Can an Edit Be Too Much? The Effects of Edits on Arousal, Attention, and Memory for Television Messages" (Shauhua Zhou and others); "Mediating the Media: Frames, Attribution of Responsibility, and Individual Media Use" (Ben Kilpatrick and Robert Wayne Leweke); "New Media Use as Political Participation" (Erik P. Bucy, Paul D'Angelo, and John E. Newhagen); "All Countries Not Created Equal to Be News: World System and International Communication" (Tsan-Kuo Chang); "Changing Epistemological Foundations in Journalism and Their Implications for Environmental News" (Rick Clifton Moore); "The Role of Involvement and a Conceptual Model of Optimal Health Communication Strategies" (Yungwook Kim); "The Determinants of Ethical Values among Communication Researchers in Academia and Industry: A Case of Practice Informing Theory" (Fiona Chew and Hao-Chieh Chang); "The Impact of Motivated Information Processing Goals and Political Expertise on Candidate Information Search, Decision-Making Strategies, and Recall" (Li-Ning Huang and Vincent Price); "Swamped in Politics: News Coverage of Wetlands in Three Presidential Administrations" (Bonnie Parnell Riechert and M. Mark Miller); "Bridging the Spheres: Political and Personal Conversation in Public and Private Spaces" (Robert O. Wyatt, Elihu Katz, and Joohoan Kim); "Invisible Defamation Plaintiffs: A Methological Critique of Gender and the Legal Research Process" (Diane L. Borden); and "Public Opinion and Ideological Center in Media Coverage: The

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Center-Seeking Mechanism in Electoral Politics" (Anthony Y.H. Fung and Tien-tsung Lee). Individual papers contain references. (CR)

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ED 415 534

PROCEEDINGS OF THE ANNUAL MEETING OF THE ASSOCIATION FOR EDUCATION IN JOURNALISM AND MASS COMMUNICATION

(80th, Chicago, Illinois, July 30-August 2, 1997):

COMMUNICATION THEORY and METHODOLOGY

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Extra! Extra! Read all about it: Attention and memory for deviant and imagistic headlines.

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Paper submitted to the Theory and Methodology Division of the Association for Education in Journalism and Mass Communication

ABSTRACT

This study examines subjects' attention to, and memory for news headlines presented on a computer screen. Four types of messages were selected from among the following combinations; high deviance/low imagery, high deviance/high imagery, low deviance/low imagery, and low deviance/high imagery as defined by David (1996). Heart rate was measured in order to determine whether or not subjects had orienting responses to the stimuli that were presented, and a recognition test was used to determine subjects' memory for stimuli. Results from this study indicate that people do not have orienting responses to news headlines presented in this manner. However, results did replicate previous research findings which showed that there is better memory for deviant and imagistic headlines than for non-deviant and non-imagistic headlines.

Extra! Extra! Read all about it:

Attention and memory for deviant and imagistic headlines.

When an unexpected event occurs, it is more likely to make news than an expected event. The propensity of the media to focus on the bizarre, the unexpected and the unusual, loosely defined as deviant news (Shoemaker, 1996), is best captured by the dictum "man bites dog, is more newsworthy than dog bites man." In fact, Shoemaker and her colleagues (e.g., Shoemaker, Chang, & Brendlinger, 1987; Shoemaker, Danielian, & Brendlinger, 1992) demonstrate that in addition to social and personal importance, the deviance of an event is an important predictor of news coverage. While many researchers and media critics have argued that the focus on deviance has detrimental consequences on our perceptions of social reality (e.g., Gitlin, 1980; McLeod & Hertog, 1992; McLeod, 1995), those in the news business see it primarily as fulfilling the demands of the audience.

While it is easy to dismiss the supply-and-demand rationale as trivial, it is incumbent on media researchers to provide a theory that explains why lurid talk shows and tabloid media, which specialize primarily in sensational and deviant news, enjoy such overwhelming success. In essence, what drives our natural curiosity for the sensational? What drives our interest in the bizarre and deviant? Why is it that most of us pay attention to tabloid headlines?

Drawing from theory in evolutionary biology, Shoemaker (1996) offers an interesting thesis that could explain our infatuation with deviant news. Shoemaker argues that at a certain level we are biologically hardwired for news. Apparently, as a basic survival instinct, over generations we have been programmed to attend to deviant or dramatic events. Our interest in the deviant news and the willingness on the part of the media to play it up is a manifestation of the surveillance function that has been critical to our survival. Therefore, it is possible that our neural circuitry engages automatically when presented with a deviant event that challenges or threatens normative behavior or status quo.

While the hardwired for news hypothesis suggests an imposing challenge to test experimentally, a more modest version of the hypothesis can be tested using physiological data. If in fact, deviant news is automatically perceived as either relevant or novel, it might manifest itself physiologically in the form of an orienting response (Lynn, 1966). Hence, the purpose of this paper is to attempt an initial test of the viability of the hardwired for news hypothesis by evaluating respondents' heart rate patterns before and during exposure to deviant and non-deviant stimuli.

While the term deviance is rich, it is amorphous and is interpreted differently in different disciplines. In sociology, for example, there is a stream of research on social deviance (e.g., Gitlin, 1980). In the mass communication literature, deviance has been conceptualized as normative and statistical (Shoemaker, Danielian, & Brendlinger, 1992). However, for the purposes of this paper, deviance is defined as schema incongruence.

Deviance and Memory

The relationship between schema incongruence and memory has been addressed by psychologists, and findings indicate that schema incongruent stimuli are recalled better than schema congruent stimuli (e.g., McDaniel & Einstein, 1986). This result has been extended to deviant news headlines and news leads in a recent article by David (1996) in which he reported that deviant news is recalled better than nondeviant news. In this paper we attempted to replicate the memory advantage for deviant news headlines using a recognition measure. Hence the first hypothesis:

> H1: Recognition memory for deviant news headlines will be better than recognition memory for non-deviant headlines.

Two plausible explanations have been advanced to account for the finding that memory is better for deviant news compared to non-deviant news (e.g., David, 1996; Schmidt, 1991): the orienting-response explanation and the deviance-imagery explanation. In the following sections we will present both explanations, derive research questions and test them in an experiment.

Deviance and the Orienting Response

The orienting-response explanation suggests that incongruent or deviant stimuli are novel events which draw immediate attention through the elicitation of an orienting response. This increase in attention then leads to better memory for the deviant information. The orienting response, sometimes called the "what is it" response, is an automatic response elicited by stimuli which are novel or signal important information (Lang, 1991; Lynn, 1966). Orienting responses result in a temporary increase in attention to the response-eliciting stimulus and can be indexed by several physiological indicators such as a decrease in heart rate and an increase in skin conductance (Lang, 1990, 1994).

Communication theorists (e.g., Lang, 1990; Thorson & Lang, 1992) have measured heart rate during television viewing as an indicator of orienting. In a series of experiments, it has been demonstrated that the heart rate slow-down (indicative of an orienting response) occurs in response to structural elements of television, such as scene changes, movement, and onset of commercials. In this study, we hope to extend research in this area by studying the orienting response to deviant and non-deviant headlines presented on a computer screen.

It is expected that when headlines appear on a blank computer screen viewers will orient to the change in the visual display in much the same way that viewers orient to the onset of videographics (Thorson & Lang, 1992), cuts, and scene changes (Lang, Geiger, Strickwerda, & Sumner, 1993) on television. This leads to hypothesis 2:

H2: The appearance of a headline on a computer screen will elicit orienting in attentive viewers.

If, as suggested above, deviant news elicits more orienting than non-deviant news. The orienting response should be larger (that is show more of a heart rate slow-down) for deviant headlines than for non-deviant headlines. Thus, hypothesis 3:

H3: Onset of a deviant news headline will result in a greater slow-down in the heart rate compared to onset of a nondeviant stimuli.

Interaction between Imagery and Deviance

The second explanation for why deviant news is remembered better than non-deviant news is that deviant news is more imagistic than non-deviant news. Deviant news stimuli are typically found to be high on imagery. Thus, it is important to introduce the role of imagery on memory and the possible interaction between imagery and deviance.

Paivio's dual-coding theory (1986) suggests that imagistic verbal stimuli have a memory advantage because they activate both visual and verbal codes (dual-code activation) compared to non-imagistic verbal stimuli that activate only the verbal code (single-code activation). Previous research in communication (e.g. David, 1996) demonstrates that imagistic headlines are remembered better than non-imagistic ones. Hence, the third hypothesis is a direct extension of

Pavio's dual-coding theory and should replicate previous research.

H4: Recognition memory for high-imagery news headlines would be better than recognition memory for low-imagery news headlines.

Also, since high imagery is strongly correlated with vividness (Kisielius & Sternthal, 1984), and vividness is also associated with an orienting response (Lang, 1994), it is possible that heart rate will slow down more for imagistic or vivid headlines compared to pallid or low imagery headlines.

H5: Onset of a high imagery headline will result in a greater slow-down in heart rate compared to onset of a low imagery headline.

By incorporating both the orienting-response explanation and the imagery-deviance interaction explanation, one can expect a significant advantage when the headline is both high in imagery and deviance, which leads to the following two interaction research questions.

RQ1: Is there an interaction between imagery and deviance for recognition memory?

RQ2: Is there an interaction between imagery and deviance for heart rate?

While examining these interactions, our goal was not to test competing models. It seemed to us that both explanations have currency. However, if the low-imagery/high deviance cell showed evidence of a bigger orienting response compared to the low-imagery/low-deviance cell, it can be interpreted as a step in the right direction for the hardwired for news hypothesis.

METHOD

Design

This experiment was conducted using a 4 (Order of presentation) X 2 (Computer/self Paced) X 2 (Deviance) X 2 (Imagery) X 4 (headlines) mixed experimental design. Computer/Self

Paced, Deviance, Imagery, and Headlines were within subjects factors. Order of presentation was a between subjects factor. The dependent variables were heart rate and recognition memory.

Stimulus Material

Each of the four orders used in this experiment contained eight of each of the following types of headlines: high imagery/low deviance, low imagery/high deviance, high imagery/high deviance, and low imagery/low deviance. The specific headlines used were taken from a set of headlines collected and pre-tested for imagery and deviance by David (1996). Headlines were written in black text and were centered on a white background. The headlines varied in length, but no headline was larger than two by seven inches. Each of the four orders were randomly generated by a computer and subjects were randomly assigned to one of the four orders.

Sixteen of the thirty-two total headlines were presented in a computer-paced section. Here, the presentation of the headlines was controlled entirely by a computer presentation program. Headlines appeared on the screen and were displayed for seven seconds before disappearing and being replaced by the next headline. The subjects controlled the presentation rate of the remaining sixteen headlines, pressing the space bar when they were ready to move on to the next headline. In two of the four orders, the computer-paced stimuli were presented first. The self-paced stimuli were presented first in the other two orders.

Subjects

Thirty-nine subjects were recruited from telecommunications classes at Indiana University to participate in this study. For their time and effort, subjects were awarded extra credit points by their instructor.

Procedure

Subjects arrived at the lab individually. They were greeted, briefed and signed consent forms. Subjects were then asked to sit down and relax while they were connected to the physiological recording equipment.

They were then assigned to one of two orders. In the first order, subjects participated in two other tasks before seeing the stimuli for this experiment. In the second order, subjects first saw the stimuli for this experiment and then participated in the two additional tasks. Additionally, subjects were assigned to one of the four stimulus orders.

For each subject the lab monitor loaded the correct order on the computer and instructed the subject to follow the directions that were given. Instructions appeared at the beginning of the computer-paced and the self-paced sections. While subjects were viewing the headlines, heart rate data was being collected.

In the case where subjects first participated in two other tasks, they were asked to participate in two corresponding recognition tasks before performing the recognition task for this experiment. In the case where subjects participated in this study first, they then performed the two other tasks before participating in the recognition task for this study.

Subjects viewed the headlines on a sixteen inch computer monitor. The presentation of stimuli was controlled by a presentation program running on a 386 computer.

Heart Rate

Heart rate data were collected using three Beckman standard AG-AGCL electrodes placed on the forearms (two recorded HR, one was a ground). The signal passed from the electrodes, to a Coulbourne bioamplifier, on to a Coulbourne bipolar comparator connected to a

Coulbourne one-shot, and into the computer. Raw data were collected as milliseconds between beats and converted to heart rate per second. Data were aggregated across onsets of deviant and non-deviant headlines as well as across all computer paced onsets to create cardiac response curves. To assess orienting, the heart rate data were analyzed using a 4 (Order) X (2 (Paced) X 2 (Deviance) X 2 (Imagery) X 4 (headlines) X 7 (Seconds) analysis of variance.

Recognition measures

Recognition was measured as follows. The recognition task contained sixty-four headlines. The thirty-two headlines used in the initial stimuli presentations were present in addition to thirty-two foils which were structurally and semantically similar to the original thirty-two headlines. The order for the recognition task was randomly generated by a computer for each subject. Subjects had two seconds within which to indicate whether they had previously seen the headline or not. The computer collected response information and scored it as to which responses were correct and which were incorrect.

RESULTS

Hypothesis 1

This hypothesis predicted that recognition memory for high deviance news headlines would be better than recognition memory for low deviance headlines. The main effect for deviance was significant, F (1, 33) = 14.70 p<.001, epsilon squared = .2875) and is shown in figure 1. Subjects correctly recognized 86% of the Deviant headlines compared to 77% of the non-deviant headlines.

_________ insert Figure 1 about here _________________________

Hypothesis 2

This hypothesis predicted that subjects would orient to the appearance of headlines on a computer screen. The predicted main effect for seconds on the heart rate data was not significant, ($F=2.22$, $p<.92$). Because this was a surprising result, the heart rate data were analyzed using two other analysis strategies to attempt to determine if subject's experienced orienting in response to text appearing on an otherwise blank screen.

First, since the self vs. computer pacing of the headlines might have interfered with orienting, the computer paced headlines (those being most like previous orienting research) were analyzed separately. The cardiac response curve created for the seven seconds following onset of the 16 computer paced headlines (collapsed across deviance and imagery) is shown in figure 2. The characteristic slow down in heart rate for 5 seconds following an orienting eliciting stimulus is not present in this graph. The main effect for seconds is not significant nor is the quadratic component of the seconds factor, the traditional indicator of orienting.

The second analysis again looked only at the computer paced data, but this time the headlines were split up into groups by position. Thus, a cardiac response curve was created for the first four headlines, the second four, the third four, and finally the fourth group of four. If orienting occurred to the early headlines, but habituated over time, this analysis should provide evidence of orienting to the first group of headlines. The results of this analysis are shown in figure 3. Again there is no evidence of orienting to headlines appearing on screen for any of the headlines. The main effect for seconds was again not significant, and it did not vary by position within the list. Thus, hypothesis two is not supported.

Hypothesis 3

This hypothesis predicted that orienting would be greater for deviant headlines than for non-deviant headlines. Again, this analysis showed no evidence of orienting to the stimulus at all. The main effect of deviance on the heart rate data was not significant (F<1). This non-significant result is pictured in Figure 4. Again visual inspection of the data shows no indication that orienting is occurring at all.

Hypothesis 4

This hypothesis predicted that recognition memory for high-imagery news headlines would be better than recognition memory for low-imagery news headlines. The main effect for imagery was significant. F (1, 33) = 5.25 p<.028, epsilon squared = .1100) and is also pictured in figure 1. Eighty four percent of high imagery headlines were recognized correctly compared to 79% of low imagery headlines.

Hypothesis 5

This hypothesis predicted that orienting would be greater for high imagery headlines than for low imagery headlines. Again, there is no main effect for imagery on the heart rate data (F<1) and visual inspection (see figure 5) of the data shows no evidence of orienting to the headlines.

Research Question 1

The first research question asks if there is an interaction between imagery and deviance for recognition memory. There was no significant interaction between these variables. While both independent variables increase memory their effects are additive, not interactive.

Research Question 2

The second research question sought to determine if there is an interaction between imagery and deviance for heart rate. Again, there were no significant interactions of these variables.

DISCUSSION

This study found, surprisingly, that viewers did not orient to headlines appearing on a computer screen. As a result, no support for the hypotheses that viewers would have larger orienting response to deviant or imagistic headlines was found.

We were unable to find support for the hardwired for news hypothesis or evidence of an orienting response to stimuli presentation. It is extremely surprising to find that people do not appear to orient to headlines appearing on a computer screen. Previous research shows that people do have orienting response to images appearing on computer screen (Bradley, Greenwald, & Hamm, 1995) and to text appearing on television screens (Thorson & Lang, 1992). Yet, it seems clear that people do not orient to this particular set of stimuli, presented in this specific manner.

Perhaps the change from a blank screen to a text-only stimulus is not sufficient for producing an orienting response. If we look at the orienting response as a hard-wired defense mechanism which allows humans to quickly orient to sights and sounds in their environment then it might be that text is not sufficiently "real world" to elicit orienting. Detection of text offers little or no evolutionary advantage, and is not a naturally occurring phenomena. Instead, being able to respond to the sounds of someone coming up behind you or the sights and sounds of a car rushing toward you do offer clear evolutionary advantages. Therefore, if we use sounds or visual images it is quite possible that subjects will respond to these items much like they have responded them when they have been presented by other media, exhibiting an orienting response.

In addition to content considerations, it is also possible that there was not a significant enough structural feature change from headline to headline to produce an orienting response. The headlines were all created using the same size and same font type. They were all black on a white screen, and were similar in overall size and positioning. Perhaps the addition of a border or a box might elicit orienting to the stimuli.

Additionally we sought to replicate the findings of previous research on memory for imagery and deviance in news headlines. Findings for recognition memory replicated previous research. We found that subjects remembered deviant headlines better than they remembered non-deviant headlines and high-imagery headlines better than they remembered low-imagery headlines. Additionally there is no interaction between imagery and deviance on recognition memory.

While the findings from this study do not suggest tell us much about "why" deviant and imagistic headlines are remembered better, it does suggest numerous directions for future research to take. As discussed above, further research needs to be conducted to determine why subjects did not orient to these stimuli. Further research needs to be conducted to determine the effects of various structural changes in these stimuli on orienting. It is possible that simply putting a box outline around each headline would cause an orienting response in response to its presentation. In fact, knowing what does not cause an orienting response allows us to make any number of minor changes to see if they might cause an orienting response.

It would also be beneficial for future studies to employ a secondary task reaction time measure to see if more processing resources are being employed to encode deviant and high-imagery headlines despite the lack of an orienting response. Since we know that subjects are attending to these headlines and performing the memory task some other mechanism of resource allocation must be operating.

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Figure 1: Main effects for deviance and imagery on recognition

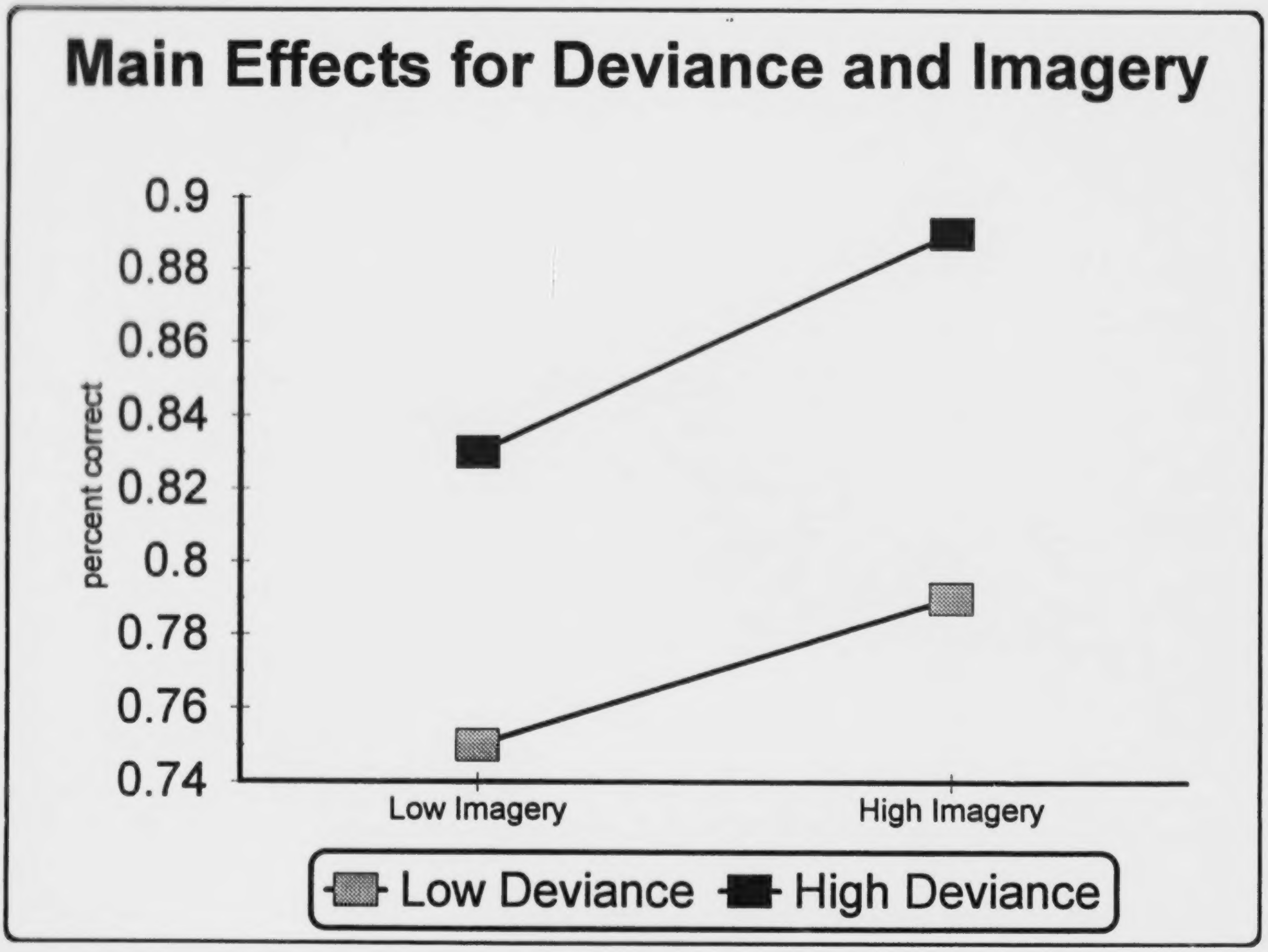

Main Effects for Deviance and Imagery

Figure 2: Heart rate by seconds

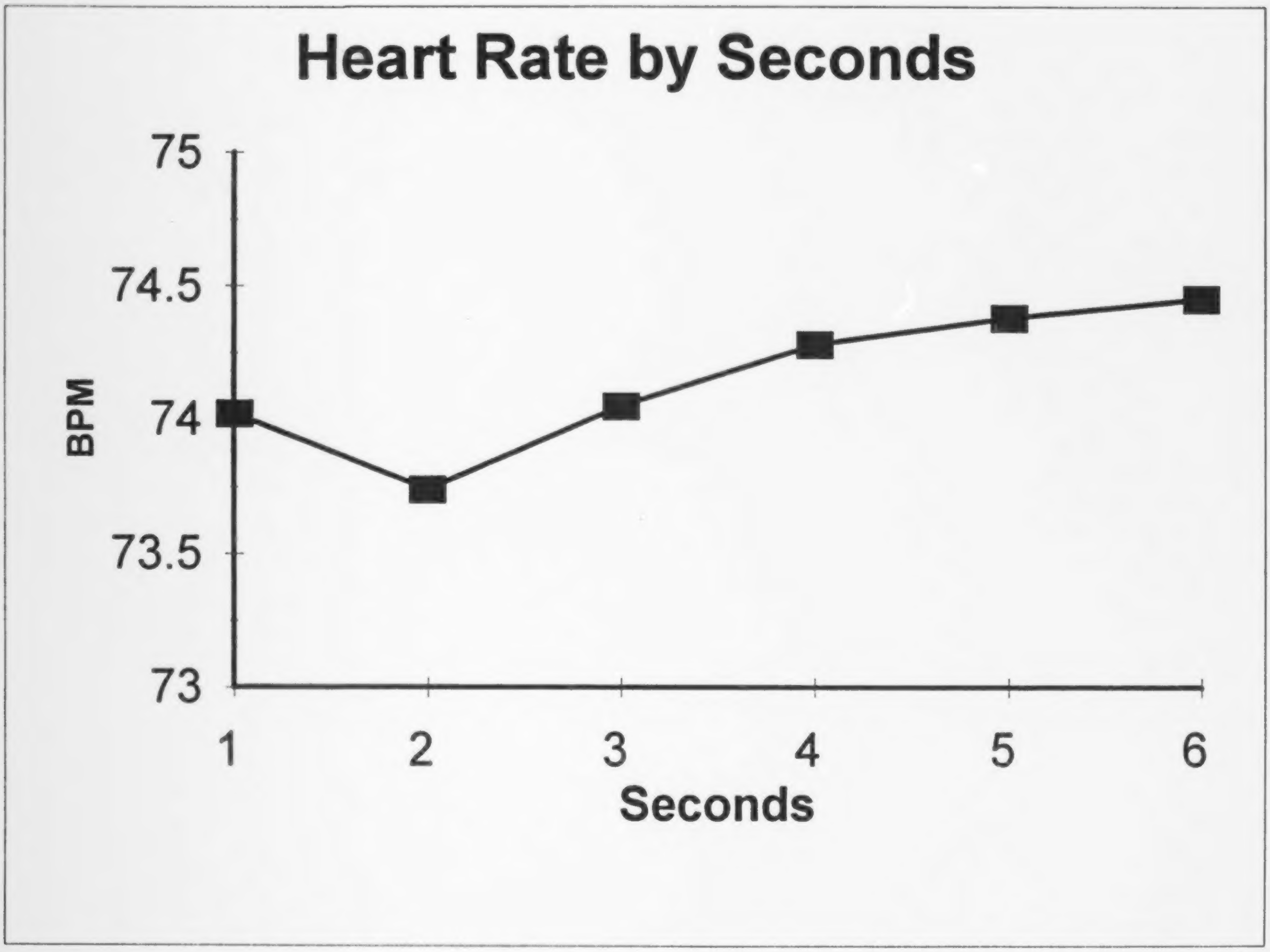

Heart Rate by Seconds
75
74.5
74
73.5
73
BPM
1
2
3
4
5
6
Seconds

Figure 3: Heart rate over time by headline position

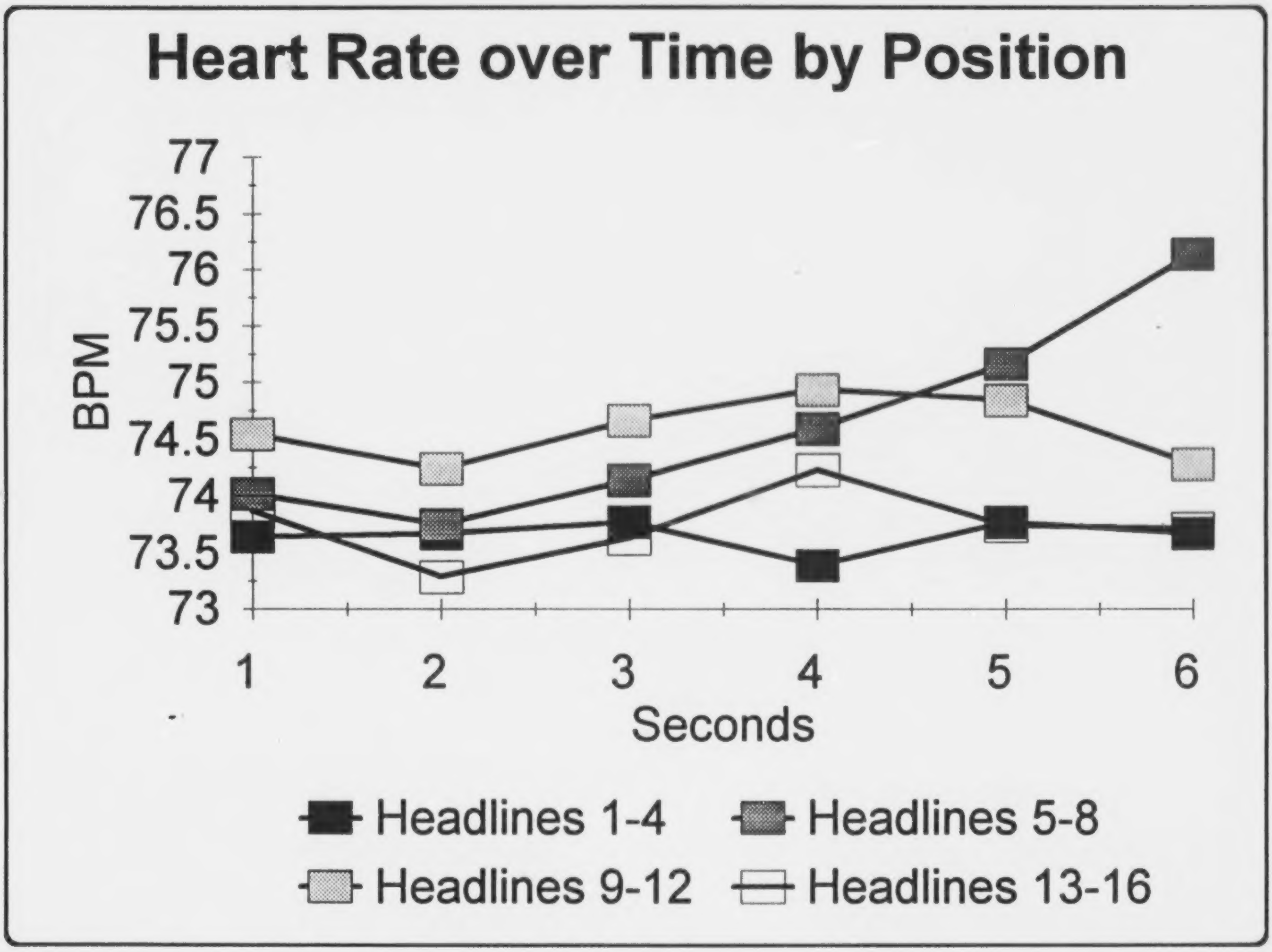

Heart Rate over Time by Position
BPM
77
76.5
76
75.5
75
74.5
74
73.5
73
1
2
3
4
5
6
Seconds
Headlines 1-4
Headlines 5-8
Headlines 9-12
Headlines 13-16

Figure 4: Heart rate by deviance

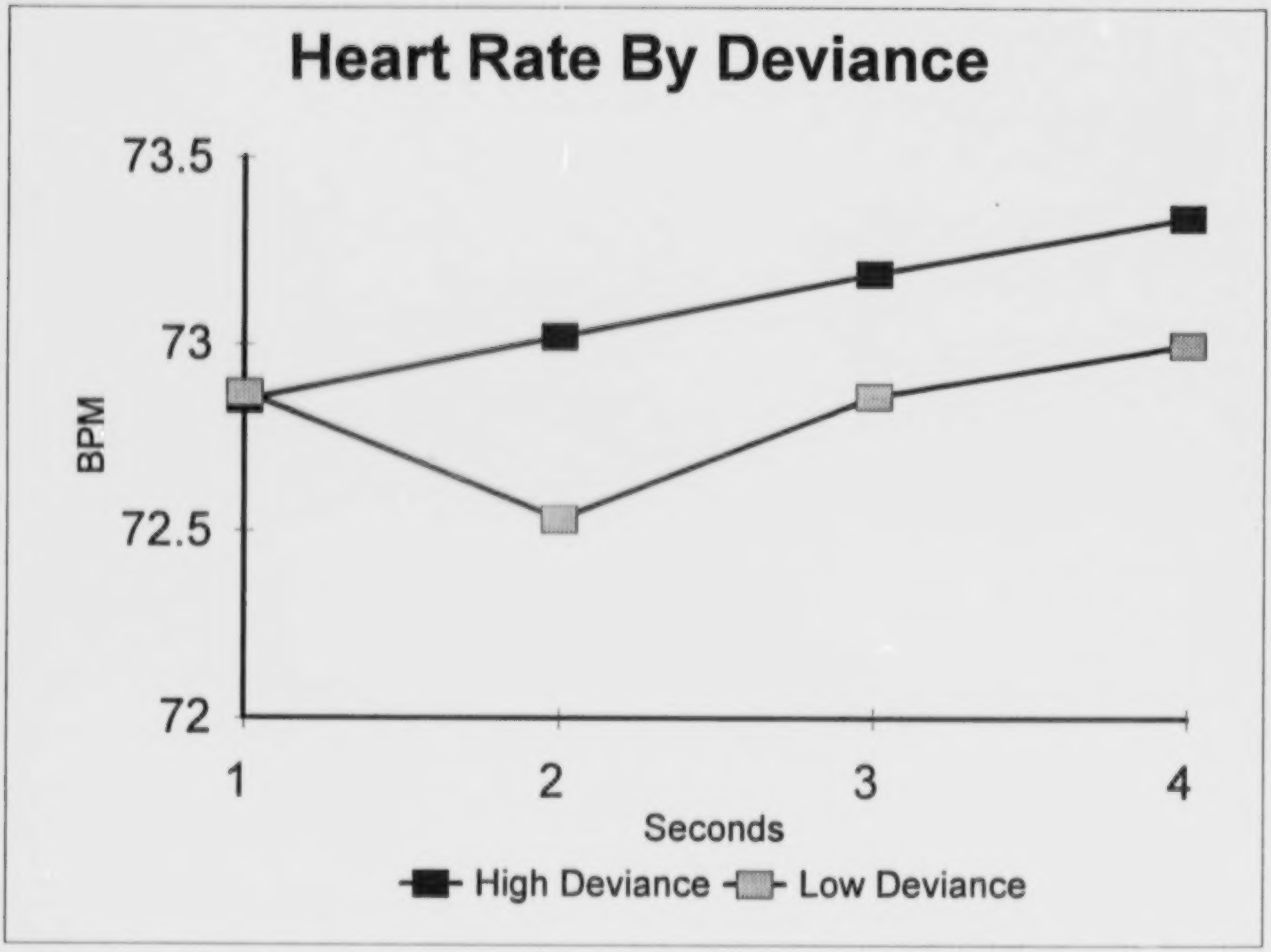
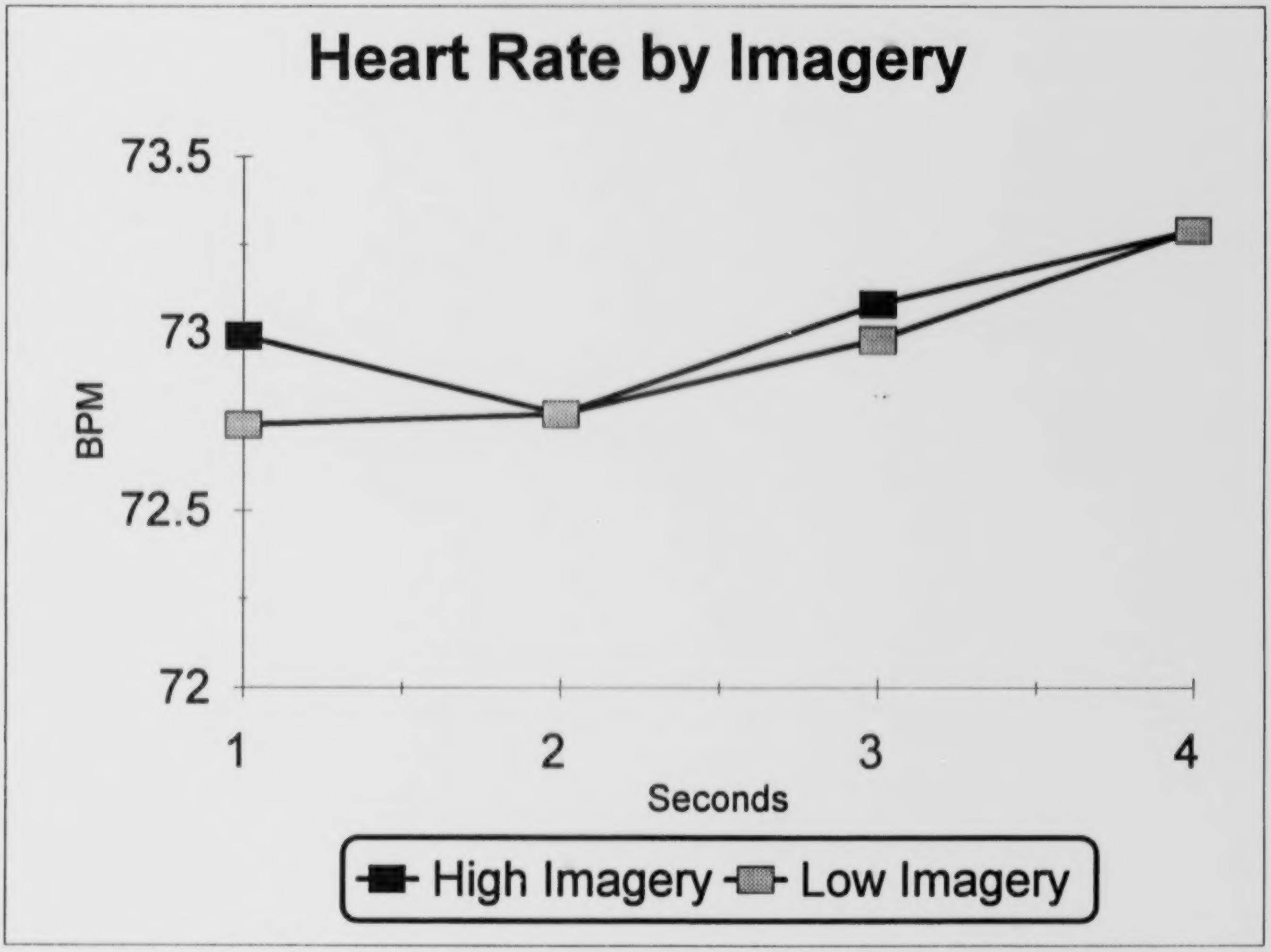

Heart Rate By Deviance
73.5
73
72.5
72
BPM
1
2
3
4
Seconds
High Deviance
Low Deviance

Figure 5: Heart rate by imagery


Heart Rate by Imagery
73.5
73
72.5
72
BPM
1
2
3
4
Seconds
High Imagery
Low Imagery

Refining a Uses and Gratification Scale for Television Viewing

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Abstract

To create a more sensitive instrument for testing uses and gratifications, Conway and Rubin's 1991 general television viewing scale was refined and tested with 289 subjects who completed the scale for 10 different program types. Researchers found that the six dimensions identified for television viewing in general did not hold across various program types. The research produces refined scales that could better test the gratifications being met for each program type as opposed to the medium as a whole.

Introduction

In the past two decades, mass communications researchers have increasingly turned to the uses and gratifications model as an alternative to persuasion models. Instead of focusing on how media messages shape attitudes and behaviors, a growing number of researchers now focus on how individuals use media to meet their needs and achieve their goals. Theory building in uses and gratifications, which began in the late 1960s and early 1970s, has produced a generally accepted uses and gratifications model. In the model, social environment—including group affiliations and personality characteristics—together with an individual's needs—such as cognitive and affective needs—drive an individual to use mass media to achieve personal gratifications, which include entertainment and social relationships (Tan, 1981). Uses and gratifications research has shifted the focus for some researchers from what the media do to people to what people do with the media (Rubin, 1994). This model stresses individual use and choice to explain media impact "in terms of the purposes, functions or uses (that is, uses and gratifications) as controlled by the choice patterns of receivers" (Fisher, 1978, p. 159). In short, audiences select media and content based on their evaluation of their need gratifications.

Uses and gratifications research has progressed in the past 20 years, mainly in the media gratifications portions of the model. For example, Katz, Gurevitch, and Haas (1973) identified three mass media use variables which can lead to media gratifications: media content, such as news programs, soap operas and the like; media attributes, for example print versus broadcast; and exposure situation, such as viewing alone or with others. More recent research examines how social environments relate to gratifications produced. However, this research is still in its infancy. Ferguson, Cho, Darlington and Valenti (1991) found only two studies that attempted to link psychological origins to gratifications. Conway and Rubin (1991) found that uses and gratifications research often has failed to link media gratifications with their social and psychological origins. These studies sought to test psychological antecedents in relation to television viewing gratification.

In their attempt to make this link, Conway and Rubin (1991) measured motives for watching television and psychological variables. In constructing a scale to measure viewing motives, they relied on two established scales from earlier studies, a 27-item scale developed by Rubin (1981), which included three statements each to tap nine viewing motives, and a four-item scale developed by Frank and Greenberg (1980, 1982) to measure Status-enhancement as a viewing motive.

Subjects in Conway and Rubin's study were given a list of motives for viewing television and were asked to answer how much each statement matched their own reasons for watching television. Choices ranged from *not at all* (1) to *exactly* (5). After a varimax-rotated principal components analysis of responses to the 31 viewing motive statements, Conway and Rubin retained 20 statements, which loaded into six factors: Pass-time, Entertainment, Information, Escape, Relaxation, and Status-enhancement. The authors did not report a reliability for the scale, but the six constructs explained 60 percent of the total variance.

Rationale for further scale development

While Conway and Rubin's viewing motivation scale begins to explain what motivates people to watch television, the measure applies only to television viewing in general. In the study, subjects responded to the statement "I watch television . . . to get away from what I'm doing," for example, citing an Escape motive. Respondents were asked to explain why they watch television in general, not why they watch different types of programming. The research could be furthered by examining why different personality types watch the *types* of television programming that they do. In other words, do differences in personality explain program choice and media gratification patterns? To answer this question, this research is designed to develop a uses and gratifications scale that could be used to measure different types of television programming. This paper tests established uses and gratifications scales with 20 different television programming types to determine whether viewer needs vary depending on the show.

According to Perse and Courtright (1993), uses and gratifications research "views people as active communicators because they are aware of their needs, evaluate various communication channels and content, and select the mass media or interpersonal channel that they believe will provide the gratifications they seek" (pg. 485). Some researchers have taken this perspective to mean that individuals select different mediums to meet certain needs (Conway & Rubin, 1991; Perse & Courtright, 1993; Cowles, 1993). Within this paradigm, researchers look for overriding gratifications that arise from using a single communication source (Rubin, 1983; Lometti, Reeves, & Bybee, 1977; Payne, Severn, & Dozier, 1993). Other research has compared motives across media, producing comparative analysis of how different media satisfy different needs and wants (Cohen, Levy, & Golden, 1988; Lichtenstein & Rosenfeld, 1983, 1984).

Some recent research and not so recent research, however, suggests that individual communication mediums may hold several uses, each with different potential gratifications, instead of just one overriding use with multiple gratifications within that one use. Even before researchers had formally conceptualized uses and gratifications, researchers such as Lazarsfeld, and Herzog were examining the appeals of different types of radio programs (see Rubin, 1994, for a review of early research on media-use typologies.) More recently, Perse & Courtright (1993) discuss "newer" communication technologies, suggesting that computers with educational software could fill learning needs while games software could fill Entertainment needs. Applying the same rationale to television, it is likely that different programming (like the computer's software) could fill an individual's varying needs. For instance, news could meet different needs than situation comedies. While some needs may overlap among different shows, the primary gratifications derived could be divergent.

In constructing their scale, Conway and Rubin (1991) clearly defined uses and gratifications as the broad idea under study and the six motivations for television viewing as their constructs. However, different types of television programming could be representing different constructs entirely, which points out one of the main problems with uses and gratifications as a theory. Critics contend the theory and the research it produces is too broad and results in findings not specific enough to be of use. Examining types of television programming as the construct and thinking of the six motivations for viewing as dimensions of these constructs could produce a more sensitive measuring instrument. With that thinking in mind, the researchers set out to refine the uses and gratifications scale for television viewing. Although there was insufficient prior research to form hypotheses, the researchers expected that different television programming types would correlate with different viewing motivations. The researchers also expected that no single program type would contain all six of the factors identified by Conway and Rubin. While Conway and Rubin's general motivation scale broke into six motivation categories, researchers expected that a more discriminating scale would produce different factors for each type of program. This sensitivity would allow future researchers to examine gratifications associated with specific program types. For example, a study on talk show viewing might only examine three motivation groups, while a study on watching television movies might examine five motivations.

Method

Scale refinement

First, Conway and Rubin's general television viewing scale was broken into 10 separate subscales. Each subscale was designed to measure motivations for watching a different program type. Based on previous research of 312 subjects' remote control use (Frisby, 1991), 10 program types were identified: nightly news, soap operas, music videos, situation comedies, television magazine shows, real-life drama, talk shows, sports, movies, and drama.

A survey instrument was developed listing the 10 program types. The researchers designed the questionnaire so that people who never watched the one of the types could skip to the next viewing category. The questionnaire instructed subjects to first respond to the statement "I never watch the news" (or other program type). If they agreed with that statement, they were instructed to skip to the next program type. Subjects who did not agree were asked to complete a 22-item scale for that program type, starting with the statement “I watch soap operas” (or other program type) “because ...” With 22 statements for each program type, the total uses and gratifications portion of the questionnaire included 220 items. However, subjects responded to only a portion of the total scale, depending on their personal viewing habits.

The same 22 viewing motivation statements were listed for each of the 10 program types. *(Appendix A lists the 22 items asked for each program type in the order they were asked on the questionnaire.)* These statements closely mirrored, but did not exactly replicate, the 20 statements in Conway and Rubin's general viewing motivation scale (1991). A few modifications were made to the scale to make it better reflect changes to the scale as it evolved in other research. The modifications mainly involved dropping items Rubin had dropped in further scale development. The six motivation categories (Pass-time, Entertainment, etc.) were maintained, but two of Conway and Rubin's statements were eliminated and four new statements were added to increase the number of items for each category. The Escape category, with three statements, and the Relaxation category, with two statements, remained unchanged. One statement in the Pass-time category—“there's no one else to talk or be with”— was eliminated because

Rubin dropped it in later research. This left the Pass-time category with four statements. One statement Rubin later added for the Entertainment category—"they're dramatic"—also was added to the revised scale, for a total of five statements in that group. In the four-item Information category, one statement—"know others have the same problem"—was left out, and a new statement—"I get information about important issues and events"—was added. This change was prompted by Rubin's earlier work (1983). Finally, an item was added in the Status-enhancement category—"They give me things to talk about with my family and friends"—to bring the total number of statements in the group to four.

To control for order effects that could lead to response bias, the 22 statements were randomly listed using a random-number table. Once the sequence was established for the 22-item scale, the order was maintained for each of the 10 program types. Respondents were asked to check boxes next to each statement on a four-point Likert scale ranging from "strongly agree" to "strongly disagree." Because a "neutral" or "don't know option" might weaken the results, researchers forced respondents chose take either an agree or disagree posture on each statement.

Procedure

The viewing scale was administered to subjects in conjunction with a research project designed to test links of personality traits and motivations for television viewing. A survey format was used with self-report questionnaires, which past research has shown to be useful in analyzing viewing motives and psychological variables (Rubin, 1981). The survey format also was selected because it is the most common methodology for uses and gratifications research and because Conway and Rubin tested their basic scale with a survey.

Questionnaires were distributed to undergraduate students, graduate students, staff, and faculty at a large state university. Those subjects attended classes or worked in the colleges of journalism, education, or agriculture. Surveys were also distributed to workers at a local Veterans Administration Hospital and in local neighborhoods. The length of the questionnaire, which contained nearly 275 items, did not seem to be a problem for most subjects. All subjects completed the form within 20 minutes. The rapid completion of the form was most likely due to the option to skip an entire viewing categories on the uses and gratification scale if a subject did not watch that program type. Subjects on average answered questions for six of the viewing categories—or about 132 scale questions—instead of the 220 items they would have to answer if they completed the full scale. (Only 18 respondents answered all 220 items, while two respondents said they didn't watch any of the program types. The vast majority of respondents answered five, six or seven of the subscales.)

The sample

The survey produced 289 completed, usable questionnaires. Subject ages ranged from 18 to 68, and the average age was nearly 26. More than half of the subjects, however, were 21 years old or younger. Subjects were evenly divided by gender, with about 47 percent male and 53 percent female. The vast majority of respondents, 231, reported their race as Caucasian, followed by 18 Hispanics and 15 African-Americans. The remaining 25 respondents indicated that they were of another race or ethnicity not specifically listed on the form. All but six subjects said they had education beyond high school. The largest educational level was the "some college" category, with 181 responses. Students represented the largest occupation classification, with 160 subjects identifying themselves as students and 17 as graduate students. The largest non-student occupation class was professional, which included teachers, lawyers, engineers, and the like. Other occupations listed by subjects included sales, clerical, service, administrator, and homemaker. The subjects reported personal income ranging from $0 to $90,000, although 27 subjects declined to answer the question. The mean income was $11,727 and the median was $6,000. These numbers were surely deflated by the 93 subjects—most likely college students—who listed a personal income of $0.

Results

Reliability for scale by types of programming

Once the data was entered, reliabilities were run on each subscale (the 22 items for each of the 10 program types). Each of the 10 scales showed a reliability of alpha > .86, and reliabilities were as high as alpha > .92, reported for the complete talk show scale With 22 items for each program type, the high reliabilities were not surprising. The item-total correlations were acceptable for all items in all scales. Only one Information item on one of the constructs (news shows) has a negative item-total correlation ($r = -.05$).

Factor analysis

Next, a factor analysis was performed to test the researchers' expectation that different program types would produce different dimensions of each viewing construct. A varimax rotation was used to minimize the number of variables that had high loadings on a factor and enhance the interpretation of the factors. As expected, the 10 different program types showed different factor loadings. None of the program subscales loaded into the six factors identified by Conway and Rubin. Situation comedies and movies loaded into three factors; soap operas, music videos, talk shows, sports, and dramas loaded into four factors; and news programs, real-life dramas, and television magazine shows loaded into five factors.

Further analysis

Preliminary data analysis showed support the researchers' expectations that separate uses and gratifications dimensions would emerge when each of the 10 types of television programs was treated as a separate construct. To further analyze the data, the researchers examined what was occurring within each construct (program types) and each of the dimensions (the six motivations). First, the 10 constructs was examined separately to determine which of the 22 items didn't work for each viewing category. Internal analyses were performed for each program type on the six uses and gratifications dimensions identified by past research. Reliabilities for the theoretically proposed dimensions revealed possible "bad items" that could be removed to improve internal consistency. *(Table 1 lists Cronbach's alpha scores for all of the six previously defined dimensions within each viewing construct.)*

Next, the actual factors that emerged for each program type were examined for internal consistency. This analysis was designed to test the researchers expectations that separate reliable dimensions would emerge for each program type. A reliability analysis was run for each clear factor that emerged within each of the 10 program types. As expected, the program types produced some internally cohesive dimensions distinct from the six motivations identified in Conway and Rubin's previous research on television viewing in general. *(Table 2 lists Cronbach's alpha scores for all of the new* *dimensions that emerged when analyzing items for within each viewing construct.)*

News shows: All of the six motivation categories were reliable except Information and Status-enhancement, each of which fell below the generally accepted standard of alpha > .70. Dropping single items did not improve either of the dimensions.

The factor analysis loaded items on to five factors, but only three of the dimensions that emerged proved reliable. The news viewing scale showed an Entertainment/Relaxation dimension (alpha = .82), which included all but the "It's dramatic" of the Entertainment items and both Relaxation items. A second factor included all of the four Pass-time items and proved reliable (alpha = .84). A third factor, which included all three Escape items, also emerged as reliable (alpha = .75). Three Information items and two Status-enhancement items loaded together, but this dimension did not prove reliable (alpha = .65). A final factor, which included three items from different dimensions, also was not reliable (alpha = .63). The other items, which loaded across several of the dimensions, also were discarded. This was the case when analyzing the factor loadings for all other television programs.

Therefore, researchers using this refined uses and gratifications scale for television news viewing should anticipate three dimensions: Entertainment/Relaxation, Pass-time, and Escape. Because theory and common sense suggest that Information and

Status-enhancement should be important motivator for watching news shows, perhaps new scale items should be developed to test news programs on these dimensions.

Soap operas: The Status-enhancement dimension showed weak reliability (alpha = .66) for soap operas. If one item was deleted from the construct, "it gives me something to talk about with my family and friends," the reliability would be improved to alpha = .78. This is consistent with the factor analysis, which showed that all of the Status-enhancement items loaded together except this item. The item-total correlation for the item was low (r = .24) compared to the dimension's other items, which showed item-total correlations of greater than r = .5. All other dimensions for soap operas seemed reliable at alpha > .70.

The factor analysis produced four dimensions. All five Entertainment items and both Relaxation items loaded as one reliable dimension (alpha = .85). All Information and three of the four Status-enhancement items loaded together on a second reliable dimension (alpha = .87). The four Pass-time items again loaded as a distinct factor, which proved reliable (alpha = .84). A fourth factor contained only one Escape item, "I can get away from the rest of my family ...", and was therefore discarded.

Future research using this refined scale for soap opera viewing should produce three dimensions: Entertainment/Relaxation, Information/Status-enhancement, and

Pass-time.

Reality shows: Findings here mirrored those for news shows, with both the Information and Status-enhancement dimensions each showing low reliability. The Information dimension cannot be improved by removing any single item. However, if the "I feel more important" item is removed from the status-enhancement dimension, internal consistency improves to alpha = .72. All of the other four motivations proved reliable

The factor analysis produced five factors. All of the Pass-time and Escape items loaded together as a reliable dimension (alpha = .85). Three Information and all Status-enhancement items loaded as a second reliable dimension (alpha = .76). Entertainment and Relaxation scales loaded as separate reliable factors (alpha = .70, and alpha = .76 respectively). The fifth factor, which contained one Status-enhancement and one Information item, was discarded.

Future research using this refined scale for viewing reality shows should produce four dimensions: Pass-time/Escape, Information/Status-enhancement, Entertainment, and Relaxation.

Music videos: All dimensions, except for Entertainment, proved reliable at alpha > .70. One item, "It's dramatic," hampered the internal consistency of the Entertainment subscale. If removed, reliability jumped to alpha = .75 for the dimension. The item-total correlation for the "It's dramatic" item was extremely low (r = .16).

The factor analysis produced four reliable factors. All Information and Status-enhancement items loaded together as a reliable dimension (alpha = .89). All Pass-time and two of the three Escape items loaded together (alpha = .83). Both Relaxation items loaded together (alpha = .81). Four of the five Entertainment items loaded together (alpha = .75). The one Entertainment item that didn't fit, "It's dramatic," loaded with the combined Information/Status-enhancement factor.

Future research using this refined scale for music video viewing should produce four dimensions: Entertainment, Information/Status-enhancement, Pass-time/Escape, and Relaxation.

Situation comedies: All dimensions expect Relaxation and Entertainment and Relaxation proved reliable at alpha > .70. The "It's dramatic" item again proved problematic for the Entertainment subscale, with an item/total correlation of r = .03. If removed, internal consistency for the dimension improved from alpha = .64 to alpha = .81. The Relaxation dimension was nearly reliable at alpha = .68. The low reliability might be explained by the small number of items (only two) in the scale.

The factor analysis revealed three reliable factors. Again all Status-enhancement and Information items loaded together (alpha = .88). Four of the five Entertainment items and both Relaxation items loaded together (alpha = .84). The one Entertainment item that did not fit, "It's dramatic," again loaded with the

Information/self-enhancement group. All Pass-time and two Escape items loaded together as the final dimension (alpha = .85).

Future research using this refined scale for situation comedy viewing should produce three dimensions: Entertainment/Relaxation, Information/Status-enhancement, and Pass-time/Escape.

News magazine programs: All dimensions expect Status-enhancement proved reliable at alpha > .70. The reliability of the Status-enhancement dimension (alpha = . 62) would be lower if any of the items were deleted.

The factor analysis revealed five factors, four of which were reliable. All Pass-time and two Escape items loaded together (alpha = .90). Four of the five Entertainment items (again, excluding the "it's dramatic item") loaded by themselves (alpha = .80). Both Relaxation items loaded together (alpha = .82). Two factors with the Status-enhancement and Information items emerged. One, containing three Information and two Status-enhancement items, was reliable (alpha = .75). The second was not (alpha = .60).

Future research using this refined scale for television news magazine viewing is expected to produce four dimensions: Entertainment, Relaxation, Information/Status-enhancement, and Pass-time/Escape.

Talk shows: All six dimensions proved reliable at alpha > .70.

The factor analysis revealed four reliable factors. The four Information items loaded together (alpha = .85). All Pass-time and all Entertainment items loaded as two separate, reliable factors (alpha = .87 and alpha = .78 respectively). The final factor included all Escape items, all Relaxation items, and all but one Status-enhancement item. This conglomerate dimension was reliable (alpha = .86).

Future research using this refined scale for talk show viewing is expected to produce four dimensions: Entertainment, Pass-time, Information, and a mixed dimension that includes Relaxation, Status-enhancement, and Escape.

Sports: All dimensions except Information proved reliable at alpha > .70. The reliability of the Information (alpha = . 68) could be improved by dropping the "I get information about important issues and events" item, which improve reliability to alpha = .76.

The factor analysis produced four factors. Three Information items, without the item mentioned above, loaded together (alpha = .76). All Pass-time items loaded as one dimension (alpha = .80). Four Entertainment and both Relaxation items produced a reliable dimension (alpha = .84). Items for the other two viewing motivations, Status-enhancement and Escape, were scattered across the factors and made up a fourth, unreliable factor.

Future research using this refined scale to examine televised sports viewing is expected to produce three dimensions:

Entertainment/Relaxation, Pass-time, and Information.

Televised movies: All dimensions proved reliable at alpha > .70.

The six dimensions loaded neatly into three reliable factors. All Information and Status-enhancement items loaded together (alpha = .88). All Entertainment and both Relaxation items loaded as one dimension (alpha = .86). All Pass-time and Escape items produced a reliable dimension (alpha = .85).

Future research using this refined scale for television viewing is expected to produce three dimensions: Entertainment/Relaxation, Pass-time/Escape, and Information/Status-enhancement.

Drama shows: All dimensions proved reliable at alpha > .70.

The factor analysis produced four factors. Again, all Information and Status-enhancement items loaded together (alpha = .89). Four Entertainment loaded together (alpha = .78) to produce a dimension, as did all Pass-time items (alpha = .88). Both Relaxation items and two of the three Escape items loaded together to produce the forth factor (alpha = .72).

Future research using this refined scale for drama show viewing is expected to produce four dimensions: Entertainment, Pass-time, Relaxation/Escape, and Information/Status-enhancement.

Discussion

While different dimensions emerged for each of the program types, the factor analysis revealed patterns. Many of the motivation groups consistently loaded together to form single dimensions (*see Table 2*). The Information and Status-enhancement factors loaded together as a single dimension seven times. The Pass-time and Escape measures loaded together as a reliable dimension for five of the program types. Entertainment and Relaxation also loaded together often, appearing as a single dimension four times. These findings suggest that Conway and Rubin's six motivational factors for viewing television in general are not completely distinct dimensions.

This research has tailored the general television viewing instrument used by Rubin and Conway for program type, creating a measure with more sensitivity to examine uses and gratifications for each type of program. However, this research should be seen as only the first step in refining television uses and gratifications scales and creating scales for types of programming. Several improvements could be made to improve the usefulness of the instrument for future research.

First, construct validity should be better assessed. The current analysis showed that many of the dimensions within program type behaved as past research would have predicted; dimensions designed to measure different concepts (for example, Information and Entertainment) generally loaded separately, suggesting high discriminant validity. But convergent and discriminant validity could be further checked by testing the scales against others designed to measure similar—or dissimilar—concepts.

Next, the constructs could be clarified. The survey instrument included examples of each program type to help subjects understand what would be included in each category (for example: "I watch soap operas (i.e. "All My Children," "Melrose Place," etc.) because ..."). These constructs were based on past research. However, the constructs also could overlap. Someone might consider television movies and drama shows similar, while another person might confuse nightly news programs and news magazines. In addition, more types of programming could be added, such as home shopping, educational programming, documentaries, infomercials, late-night variety shows (Letterman, Leno). Conversely, paring the number of program types tested at once would allow more items to be included in each of the six dimensions. For example, Relaxation was tested with only two items and Escape was tested with three. These should be expanded to include at least four items, as in the other dimensions.

In addition, the dimensions could be better defined by eliminating or rewording items. Several of the items in different dimensions seemed to be measuring the same thing. For example, "I have nothing better to do," a Pass-time item, seems similar to "It is something to do when friends come over," an Escape item. Further analysis of the data and the factor analysis could measure overlap among dimensions and help purify the measure.

Further, items that don't work should be dropped from the scale. Factor analysis revealed several items that didn't seem to be loading as expected. For example, the "It's dramatic" Entertainment item only loaded with the rest of the Entertainment items for soap operas, reality-based news shows, talk shows, and drama shows. It loaded in other, unexpected places for the other six program types, suggesting that the item didn't hold well across program types.

Finally, the scales should be tested with known groups. Comparing the results of this research with that of known groups could help test validity and check norms. Because no previous research had looked at uses and gratifications for program types, the researchers could not compare our findings with known groups. Data from future scale development should be compared with these findings using the different personality types as the known groups.

Conclusion

This research is born out of the idea that people select and use specific media content in anticipation of having some particular need or set of needs gratified. Because research employing a uses and gratifications theoretical perspective typically finds the same six gratifications (Information, Entertainment, Relaxation, Passing time, Status enhancement, and Escape), critics of the uses and gratifications theoretical approach argue that research typically produces useless results. This study suggests that the six previously identified gratifications for television viewing in general do not consistently hold when consumers are asked about specific program content. For example, the information obtained from soap operas appears to be used for status-enhancement or social-interaction reasons, while the information obtained from news programs typically is used for providing knowledge about the self and the world. This study identifies how specific television programs are used by viewers to serve their needs.

This path of research could suggest serious implications for television programmers and advertisers. Under current advertising rates, one 30-second television commercial cost an advertiser anywhere from $250,000 to $1.2 million. As a result, advertisers want to be assured that they are buying the "right" audience. Consequently, network programmers and producers, attempt to create and transmit the sorts of television programs that will attract the "right" audiences. Television as a medium and television content in general do attract a particular sort of audience. But more variation is seen in the types of audiences attracted to different types of programs. The results of this research can prove meaningful for advertisers, network programmers, producers, and mass communication theorists because results identify what gratifications viewers expect television programs to fulfill. Subsequently, advertisers, knowing the needs of the target audience, may now design ad campaigns designed to meet those needs.

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Appendix A

Subjects responded to the following 22 items for each of the 10 program types. Subjects were asked to respond to each item on a four-point scale where 1 = strongly agree and 4 = strongly disagree.

I watch television news programs (i.e. local news, national news) because:

I learn how to do things	*(Information)*
They entertain me	*(Entertainment)*
I feel more important	*(Status enhancement)*
It's something to occupy the time	*(Pass time)*
Because they're on at that time	*(Pass time)*
I learn what might happen to me	*(Information)*
They're dramatic	*(Entertainment)*
I get information about important issues and events	*(Information)*
They're enjoyable	*(Entertainment)*
I learn about myself and others	*(Status enhancement)*
I can get away from what I am doing	*(Escape)*
I can get away from the rest of the family and others	*(Escape)*
It is something to do when friends come over	*(Escape)*
They relax me	*(Relaxation)*
I have nothing better to do	*(Pass time)*
I just like to watch them	*(Entertainment)*
I can impress people	*(Status enhancement)*
They pass time away	*(Pass time)*
They give me things to talk about with my friends and family	*(Status enhancement)*
They amuse me	*(Entertainment)*
They give me facts to back up my opinions	*(Information)*
They allow me to unwind	*(Relaxation)*

The same scale was repeated, in the same order, for each of the following program types:

- I watch soap operas (i.e. Melrose Place, All My Children, Day of Our Lives, etc.) because:
- I watch real-life drama shows (i.e. Cops, Rescue 911, etc.) because:
- I watch music video programs (i.e. VH1, MTV, TNN, Gospel Music Channel, etc.) because:
- I watch situation comedies (i.e. The Simpsons, Seinfeld, etc.) because:
- I watch news magazine shows (i.e. "20/20", Dateline, 60 Minutes, etc.) because:
- I watch talk shows (i.e. Oprah, Rickie Lake, Montel Williams, etc.) because:
- I watch sports shows (i.e. football, basketball, ESPN Sports Center, etc.) because:
- I watch television movies (i.e. network movies, cable movies on HBO, Showtime, Lifetime, etc.) because:
- I watch television drama (i.e. NYPD Blue, ER, Picket Fences, etc.) because:

Table 1

Reliabilities for six dimensions under each program type as defined by Conway and Rubin. The number of subjects completing the scale is listed for each program type. Subjects were instructed not to answer the scale for a program type if they did not watch those types of shows.

News shows (n = 225)	
Information	.57
Entertainment	.75
Status-enhancement	.62
Pass time	.84
Escape	.75
Relaxation	.77

Soap operas (n = 152)	
Information	.82
Entertainment	.81
Status-enhancement	.66
Pass-time	.84
Escape	.70
Relaxation	.75

Real-life dramas (n = 127)	
Information	.67
Entertainment	.70
Status-enhancement	.65
Pass-time	.73
Escape	.79
Relaxation	.76

Music videos (n = 191)	
Information	.86
Entertainment	.66
Status-enhancement	.76
Pass-time	.75
Escape	.71
Relaxation	.81

Situation comedies (n =250)	
Information	.87
Entertainment	.64
Status-enhancement	.74
Pass-time	.82
Escape	.73
Relaxation	.68

News magazines (n = 159)	
Information	.74
Entertainment	.77
Status-enhancement	.62
Pass-time	.87
Escape	.73
Relaxation	.82

Talk shows (n = 145)	
Information	.85
Entertainment	.78
Status-enhancement	.74
Pass-time	.87
Escape	.76
Relaxation	.82

Sports (n = 134)	
Information	.68
Entertainment	.71
Status-enhancement	.74
Pass-time	.80
Escape	.76
Relaxation	.86

Television movies (n = 190)	
Information	.84
Entertainment	.84
Status-enhancement	.78
Pass-time	.81
Escape	.76
Relaxation	.80

Drama shows (n = 123)	
Information	.83
Entertainment	.79
Status-enhancement	.81
Pass-time	.88
Escape	.73
Relaxation	.85

Table 2

Six dimensions predicted by Conway and Rubin's research:

Entertainment
Status-enhancement
Relaxation
Pass Time
Information
Escape

Dimensions as they loaded by television program type in this research:

The number of clear, reliable factors that emerged in further analysis is listed after each program type. The reliability is listed for each dimension, as is the number of items that loaded on that dimension.

News shows (3 factors)

Entertainment/Relaxation	.82 (6)
Pass Time	.84 (4)
Escape	.75 (3)

Soap operas (3 factors)

Entertainment/Relaxation	.85 (7)
Information/Status-Enhancement	.87 (7)
Pass Time	.84 (4)

Real-life dramas (4 factors)

Entertainment	.70 (5)
Relaxation	.76 (2)
Information/Status-Enhancement	.76 (7)
Pass-Time/Escape	.85 (7)

Music videos (4 factors)

Entertainment	.76 (4)
Relaxation	.81 (2)
Information/Status-Enhancement	.89 (9)
Pass Time/Escape	.83 (6)

Situation comedies (3 factors)

Entertainment/Relaxation	.85 (6)
Information/Status -Enhancement	.88 (9)
Pass Time/Escape	.85 (6)

News magazines (4 factors)

Entertainment	.80 (4)
Relaxation	.82 (2)
Information/Status-Enhancement	.75 (5)
Pass Time/Escape	.90 (6)

Talk shows (4 factors)

Entertainment	.78 (5)
Information	.85 (4)
Pass Time	.87 (4)
Mix of other three factors	.86 (8)

Sports (3 factors)

Entertainment/Relaxation	.84 (6)
Information	.76 (3)
Pass Time	.80 (4)

Television movies (3 factors)

Entertainment/Relaxation	.86 (7)
Information/Status-Enhancement	.88 (8)
Pass Time/Escape	.85 (7)

Drama shows (4 factors)

Entertainment	.78 (4)
Relaxation/Escape	.72 (4)
Information/Status-Enhancement	.89 (8)
Pass Time	.88 (4)

Running Head: The Political Gender Gap in the 1996 Presidential Election

Beyond Sex: The Political Gender Gap in the 1996 Presidential Election

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Abstract

A telephone survey of Syracuse, New York, residents was conducted in October/November 1996 to test the study's hypotheses regarding the political gender gap and media sources utilized to obtain political information. The fact that this study's results failed to replicate previous political gender gap findings is significant. Findings demonstrate that the historical distinction between traditionally "male" and "female" political issues may be changing in today's political climate. This analysis also successfully developed a reliable gender scale which extends conventional telephone survey research methodology.

By showcasing dozens of women in such prominent roles as keynote speakers and chairwomen at the Republican and Democratic conventions, both political parties delivered deliberate appeals to female voters for the 1996 U. S. presidential campaign. Indeed, a pre-election New York Times article described both parties as "believ[ing] that the election will ultimately be decided by the women's vote" (Nagourney, 1996, p. A1). Identified by some strategists as "soccer moms," suburban women swing voters were targeted by both the Democratic and Republican candidates (Frisby & Seib, 1996, p. A4).

Polls conducted during the convention reported Clinton ahead of Dole by margins of six and sixteen percent among male and female voters, respectively; a gender gap that one democratic pollster hoped to transform "into a gender canyon -- and put the race out of range" (Nagourney, 1996, p. A1). The "gender gap" between female and male voting patterns was first identified during the 1980 presidential election, when eight percent more men than women voted for Ronald Reagan (Abzug, 1984, p. 1). Although a plethora of scholarly books and articles addressing this political gender gap appeared during the decade that followed its identification, research on this area has been sparse over the past five years.

Another important development during this decade that has remained relatively unexamined by scholars concerns the emergence of new media vehicles for political campaigns. During the 1992 presidential campaign, candidates appeared in many unusual media milieus, including daytime talk shows, infomercials, and MTV programs. One political scientist describes a recent explosion of new media information outlets producing "new opportunities for politicians to reach out to constituents, sometimes in unconventional ways" (Kerbel, 1995, p. 3).

This study seeks to identify how the political gender gap manifests itself in the new media environment of the 1996 presidential election.

Theory

Political Gender Gap

The phenomenon labeled "gender gap" describes the pronounced differences between male and female voting behaviors that have emerged in the United States over the past fifteen years. This gap was first identified during the 1980 election when eight percent more women than men voted for Jimmy Carter and eight percent more men than women voted for Ronald Reagan (Kelber, 1994).

According to Baxter and Lansing, "the term gender gap...became part of the political vernacular during the 1982 election [when] the women's vote made the difference in a number of close races" (1983, p. 212). These voting differences have continued into this decade. In the 1994 congressional elections, for example, "women gave Democrats an eight-point margin, while men picked Republicans by 14 points" ("Gender Gap Politics," 1995, p. 22).

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In the early 1980s, many scholars explored these nascent female voting patterns. In Women and Politics: The Visible Majority, Baxter and Lansing (1983) compared contemporary characteristics of female voters to historical U. S. trends. Discriminant analysis revealed employment status and age as the most important predictors of female voting behaviors, demonstrating that "the voters who produced the gender gaps in 1980 and 1982 were not simply women, but were likely to be professional working women over the age of thirty (Baxter & Lansing, 1983, p. 185). Women with higher income and education levels were also more likely to vote (Baxter & Lansing, 1983).

Abzug (1984) characterized stronger gender gap voting patterns among southerners, African-Americans, Catholics, Jews, professionals, college graduates, democratic and independent political affiliations, and 30 to 44 year olds. The current study will develop similar controls for the following voter demographics: age, employment status, education, income, race, ethnicity, religion, and party affiliation.

Abzug partly explains the gender gap in terms of women's support of political issues that reflect "the distinctive political voice of women" (1984, p. 5). These issues include the reduction of military spending and unemployment, the advancement of world peace and women's rights, assistance to the poor, and protection of the environment (Abzug, 1984). In the early 1980s, women were more likely to vote democratic and support world peace, environmental preservation, and "women's" issues (e.g., the Equal Rights Amendment and abortion) than men (Baxter & Lansing, 1983). Over the last decade, scholars have continued to specify the political issues that are most closely associated with gender gap voting patterns. In contrast to men, women tend to be more supportive of social programs, racial equality, legislation to resolve social problems, job security, alternatives to nuclear power, international peace, and education (Abraham, 1995; Fitzpatrick, 1995; Huddy & Terkildsen, 1993; Kelber, 1994; Mandel, 1995; Mueller, 1991; Somma, 1992).

Welch and Hibbing (1992) have classified these gender gap political issues into two categories: sociotropic and egocentric voting patterns. Using secondary data from the 1980 and 1984 National Election Study surveys, Welch and Hibbing (1992) found that men were more likely to base their voting decisions on egocentric economic factors (e.g., concern for personal economic well-being) while women tended to rely on sociotropic economic influences (e.g., concern for the nation's financial health). These results persisted after controlling for partisanship, education, and income. The authors conclude that, "the gender gap encompasses more than just having slightly dissimilar political attitudes; it also includes a different way of using these attitudes to provide a basis for political action" (Welch & Hibbing, 1992, p. 210).

Other scholars have also identified sociotropic voting patterns as an explanation of the political gender gap. According to Abzug (1984), the political gender gap developed when women began to extend their long-standing personal (private) values of non-violence and nurturing into their political (public) views. The socialization of females in care-giving roles may have created this "compassion" gap which leads to sociotropic voting patterns among women (Gilligan, 1982; Miller, 1988; Norris 1985; Somma, 1992). Similar to this previous body of research, the current study will examine the potential gender gap in the 1996 presidential election in terms of these sociotropic and egocentric political issues.

Another factor that may explain the emergence of the gender gap concerns the social and economic position of women in society: "Changing material conditions in motherhood, marriage, and work underlie the politicization of women and gender group consciousness (Klein, 1984, as cited in Somma, 1992, p. 44). Over the past 35 years, U. S. Census data has shown a marked increase in the number of employed women in the workforce. Recent voting trends, indeed, appear to reflect these changing female demographics: In the 1980s, employment status and age supplanted education for the first time in the history of women's voting patterns as more important predictors of voting behavior (Baxter & Lansing, 1983). As mentioned previously, this study will examine voter demographics in relation to sociotropic and egocentric political issues in the 1996 election.

A third factor that may have contributed to gender gap voting patterns concerns the emergence of women's "politicized gender consciousness" (Somma, 1992, p. 43). Feminist scholarship is based on "a theoretical acknowledgment of women's traditional devaluation . . . in relation to men with the assumption that the relationship needs to change" (Steeves, 1987, p. 96). Over the past thirty years, the second wave of the women's movement has worked towards identifying women's oppression in order to promote change (Boles, 1991). Contemporary voting patterns among women may reflect this influence from the women's movement and feminist scholarship.

The political gender gap has been described as the tendency of women to vote democratic and for women candidates (Mandel, 1995); to favor sociotropic issues (Somma, 1992); and to vote in higher numbers than men (Mueller, 1991). After 1980, scholars also identified a "gender gap in presidential campaign discourse" where Republicans were more likely to refer to "men" and "man" and less likely to refer to "societal values" than Democrats in campaign speeches (The Annenberg Public Policy Center, 1996). The current study will examine the potential gender gap in the 1996 presidential election in relation to voter demographics and issue salience.

Gender and Sex Roles

Scholarly research on the political gender gap has equated the terms *gender* and *sex* as if they were interchangeable: For most social scientists, both terms refer exclusively to the biological differences between women and men. Recent criticisms of this traditional approach have recognized that:

> Gender is not limited to femaleness and maleness, but includes men, masculinity, and manliness as well as women, femininity, and womanliness. Gender extends to normative sets of beliefs, which can be

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> considered as feminism and masculinism. Masculinism is more than a way of being; like feminism, it can be considered as an ideology (Duerst-Lahti & Kelly, 1995, p. 5).

The current study will attempt to extend the political gender gap literature to examine this concept of gender rather than biological sex differences among men and women.

From the psychological literature, four theories of gender development have evolved: psychoanalytic theory, social learning theory, cognitive development theory, and gender schema theory (Bem, 1984). Based on Freud, psychoanalytic theory describes an individual's gender identification and sexualization as socially and culturally created in the unconscious mind through comparison with a same-sex parent (Chodorow, 1989). Psychoanalytic feminist theory has extended Freud's work to describe the importance of mothering in the creation of "nurturant moral models" among women (Chodorow, 1978, p. 5).

In contrast, social cognitive theory emphasizes how gender identification is acquired through observational learning from the external environment (Bandura, 1994). A child identifies appropriate gendered behavior through a "triadic reciprocal causation" model that links cognition/internal events, behavior, and the social environment (Bandura, 1994, p. 61).

Cognitive-development theory assumes that sex typing inevitably occurs from children's cognitive development; this theoretical approach almost exclusively identifies the individual child as his or her primary sex-role socialization agent (Bem, 1984). Following the formulation of a gender-based self-concept, the child seeks gender-congruent attributes and activities (Kohlberg, 1966).

Gender schema theory synthesizes selected features of the social learning and cognitive-development approaches: "Sex typing is mediated by the child's own cognitive processing" in the context of "sex-differentiated practices of the social community" (Bem, 1984, p. 186). Gender schema are cognitive processing patterns or associational networks that organize individual perceptions about others and self in terms of gender (Hitchon & Chang, 1995). These schema can be "primed" or activated by external stimuli like the media (Jo & Berkowitz, 1994).

In order to measure masculinity and femininity, Bem developed the Bem Sex Role Inventory (BSRI) to classify respondents' gender based on forty personality traits; "20 of the attributes reflect the culture's definition of masculinity (e.g., assertive, independent), [and] 20 reflect the culture's definition of femininity (e.g., tender, understanding)" (Bem, 1984, p. 192). Critics of the BSRI and other similar instruments contend that these questionnaires only measure, stereotypically and through self-report, two personality characteristics rather than more universal theoretical concepts of masculinity and femininity (Spence, 1984). Other criticisms describe how the "broad multidimensional concepts [of femininity and masculinity] are not readily captured in either one- or two-dimensional questionnaires" (Deaux, 1985, p. 59).

The current study concedes these limitations of measuring a respondent's gender through survey research; however, a gender scale of masculine and feminine traits presents a vast improvement over the mere measurement of biological sex prevalent among most quantitative research methodologies. Based on various gender trait analyses utilized in previous research (Bem, 1984; Diamond & Harstock, 1981; Hitchon & Chang, 1995; Huddy & Terkildsen, 1993; Somma, 1992; Welch & Hibbing, 1992), this study will develop a gender scale to measure respondents' personality traits that describes gender in terms of the "socially-ascribed meanings given to the categories of man and woman" (de Bruyn, 1995, p. 12).

Politics and Media Sources

The use of media during the 1992 presidential campaign was unique; candidates utilized a variety of unconventional media outlets, including daytime talk shows (e.g., *Donahue*), infomercials, cable programs (e.g., Music Television), radio talk shows, etc. As a relatively recent phenomenon, this new political media usage has not been extensively studied.

Graber (1996) has described the use of "new" media in political campaigns as empowering to voters by allowing them to actively chose, edit, and frame their mediated political news and bypass professional journalistic routines. Diamond, McKay, and Silverman confirm how "Clinton and Perot consistently tried to go 'over the heads of the professionals' -- the journalists from the old-news formats -- to reach 'the real people'" (1993, p. 259). The candidates, furthermore, appear to have adopted a new delivery style (e.g., more casual and self-deprecating) to suit these new media formats (Diamond, McKay, & Silverman, 1993).

In a study correlating exposure to news media with levels of cynicism among Hong Kong residents, Wilkins asserts "that women both use the mass media differently and hold distinct sets of political attitudes from men" (1995, p. 257). According to Wilkins (1995), media perpetuate a pattern of silencing women's voices by legitimating and reinforcing patriarchal social and political structures; women, therefore, seek different forms of media for different uses than men.[1] This study hypothesizes that new forms of mediated political discourse which by-pass traditional journalistic coverage will have a greater appeal to women than men by rupturing some of these patriarchal restrictions.

By examining self-reported media use by feminist and non-feminists, Lull, Mulac, and Rosen (1983) discovered that attitudes toward feminism predict quantitative and qualitative differences in electronic media use. The authors found that "the feminist personality attribute operates independent of sex" and that sex may be increasingly "less predictive of media consumption" (Lull, Mulac, & Rosen, 1983, p. 176). Through the use of a gender scale, the current research similarly will examine gendered patterns of media use to obtain political information.

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[1] The work of Tuchman (1978), Gitlin (1980), and van Zoonen (1994) also discuss the media's role in perpetrating the dominant ideology of the ruling class.

In a survey during the 1990 congressional campaigns, Weaver and Drew (1993) identified respondents' attention to the more unconventional formats of television campaign advertisements, regional newspapers, and radio news shows (rather than traditional television news programs and prestige newspapers) as significant predictors of their knowledge of campaign issues. In two 1992 surveys, McLeod, Guo, Daily, Steele, Huang, Horowitz, and Chen (1996) examined traditional and non-traditional media use by voters and found that women were more likely to use non-traditional media outlets (e.g., political advertisements and polls). The authors also found that use of a non-traditional medium correlated to the utilization of other unconventional media outlets (McLeod, et al., 1996). The current study also predicts that women will prefer non-traditional media sources of political information more than men.

Chaffee, Zhao, & Leshner (1994) examined the use of MTV, talk shows, and late shows as well as more conventional media sources by voters in the 1992 presidential election. Findings indicated that viewing candidates on talk shows correlated with high candidate-issue knowledge, whereas, MTV viewing corresponded to low candidate-issue knowledge (the correlation of late shows and issue-knowledge was not significant) (Chaffee, Zhao, & Leshner, 1994). Women were found to be less knowledgeable about campaign party and candidate issues than men (Chaffee, Zhao, & Leshner, 1994).

One of the difficulties of studying voter usage of unconventional media sources concerns the potential access and extensive use of those media to the majority of survey respondents included in the study's sample (Mayer, 1994). In order to avoid this problem, the current study will ask respondents about their likely use of new media to obtain political information rather than measuring their reported behaviors.

Based on the previous literature concerning the political gender gap and uses of unconventional media during election campaigns, this study poses the following hypotheses:

Hypothesis 1: The more "feminine" the respondent rates on a gender scale, the more likely s/he will support sociotropic election issues, identify with a Democratic Party affiliation, and express a preference to vote for Democratic candidates.

Hypothesis 2: The more "masculine" the respondent rates on a gender scale, the more likely s/he will support egocentric election issues, identify with a Republican Party affiliation, and express a preference to vote for Republican candidates.

The first two hypotheses are based on numerous research studies since 1980 that have demonstrated a political gender gap between women and men, where women are more likely to vote for the democratic candidate and favor political issues that generally promote the social welfare (e.g., *sociotropic*) over personal concerns (e.g., *egocentric*) (Abzug, 1984; Baxter & Lansing, 1983; Welch & Hibbing, 1992). For the purposes of this study, the terms *sociotropic* and *egocentric* have been expanded from Welch and Hibbing's (1992) original definitions to include a broader range of political issues that previous studies have correlated to women's (e.g., non-violent and nurturing) and men's (e.g., protective and hawkish) voting patterns over the past 25 years (Abraham, 1995; Abzug, 1984; Baxter & Lansing, 1983; Fitzpatrick, 1995; Huddy & Terkildsen, 1993; Kelber, 1994; Mandel, 1995; Mueller, 1991; Somma, 1992).

In an effort to extend the conventional research methodologies used in gender gap analyses, this study will also measure gender rather than biological sex differences between men and women. Adapted from the psychological literature, a gender scale has been developed to measure respondents' identification with personality traits culturally attributed to masculine and feminine categories (Bem, 1984; de Bruyn, 1995; Diamond & Harstock, 1981; Hitchon & Chang, 1995; Huddy & Terkildsen, 1993; Somma, 1992; Welch & Hibbing, 1992).

Two additional hypotheses will also be examined in this study:

Hypothesis 3: The more "feminine" the respondent rates on a gender scale, the more likely s/he will utilize unconventional media as sources for political information.

Hypothesis 4: The more "masculine" the respondent rates on a gender scale, the more likely s/he will utilize conventional media as sources for political information.

The third and fourth hypotheses are based on previous research that has identified distinct differences in media choices between women and men or feminists and non-feminists (Lull, Mulac, & Rosen, 1983; Wilkins, 1995). Other studies have specifically demonstrated a higher likelihood for women to use unconventional political media sources (e.g., polls, advertisements) than men (Chaffee, Zhao, & Leshner, 1994; McLeod, et al., 1996). The same gender scale developed for the first two hypotheses will be tested to predict conventional and unconventional media use by feminine and masculine survey respondents. For all four hypotheses tests, gender scale results will be compared to the biological sex of respondents.

Method

In order to test the study's hypotheses that 1) more feminine individuals are likely to support the Democratic party, Democratic candidates, and sociotropic political issues,

2) more masculine individuals are likely to support the Republican party, Republican candidates, and egocentric political issues, 3) more feminine individuals are likely to use unconventional political media sources, and 4) more masculine individuals are likely to use conventional media political sources, a telephone survey was developed.

Survey Design

The survey questions designed for this analysis were combined into a larger survey project conducted by eight graduate students at the S. I. Newhouse School of Public Communications at Syracuse University over a two-week period in September and October of 1996. The entire survey instrument contained 120 questions covering various media-related research topics. A total of twenty-eight questions were included on the survey specifically to test the four hypotheses developed for this study. These questions predominately consisted of Likert-type scales.

For the first two hypotheses, a series of questions were developed to measure respondents' identification with sociotropic (e.g., non-violent, nurturing, concerned with social welfare) versus egocentric (e.g., protective, hawkish, related to individualistic concerns) political issues. Respondents were asked to indicate agreement with six statements on a five-point, Likert-type scale ranging from strongly agree to strongly disagree. Sociotropic issues included protecting the environment, helping the homeless, and improving the quality of education while egocentric issues included increasing defense spending, fighting crime, and enlarging law enforcement forces. All of these issues have been identified and tested in previous gender gap research (Abraham, 1995; Abzug, 1984; Baxter & Lansing, 1983; Fitzpatrick, 1995; Huddy & Terkildsen, 1993; Kelber, 1994; Mandel, 1995; Mueller, 1991; Somma, 1992). Two questions asked respondents to indicate their party affiliation and whether they were more likely to vote for Democratic or Republican political candidates.

The gender scale used in all four hypotheses consisted of eight adjectives that described specific personality traits that have been identified as masculine (e.g., aggressive, assertive, ambitious, and strong) or feminine (cooperative, nurturing, sensitive, and gentle) in previous research (Bem, 1984; de Bruyn, 1995; Diamond & Harstock, 1981; Hitchon & Chang, 1995; Huddy & Terkildsen, 1993; Somma, 1992; Welch & Hibbing, 1992). Respondents were again asked to indicate their agreement on the same five-point Likert-type scale with statements describing themselves in terms of each personality trait (e.g., "The word *aggressive* describes me").

For the third and fourth hypotheses, conventional and unconventional media use were measured by asking respondents how likely they would be to obtain political information from ten media sources: television news, newspapers, news magazines, National Public Radio programs, live televised debates, Cable News Network programs, tabloid television news, late night talk shows, radio call-in shows, and the Internet/World Wide Web. The first five sources listed here were considered conventional based on previous research, as well as their historical status as traditional sources for political

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information; the last five sources represent relatively new media formats for political information (Chaffee, Zhao, & Leshner, 1994; McLeod, et al., 1996) and are considered non-conventional political sources in this analysis.

Following a pre-test of the preliminary questionnaire, the survey instrument was revised. Many questions were eliminated or re-written in order to address problems identified from pre-test results. In addition, question order and placement within the questionnaire were modified in order to refine the instrument. Additional demographic questions were also included on the survey instrument and used in this analysis.

Sampling

In order to generate a random sample of Syracuse, New York, residents, a CD-ROM telephone directory (SelectPhone, Northeast, 1997, first quarter) was used to develop the sampling frame for the study. All telephone numbers within the local calling area of Syracuse University were initially selected from the CD-ROM database. After eliminating all business and duplicate telephone numbers, a list of 197,000 residential Syracuse telephone numbers was identified for the study's sampling frame.

These telephone numbers were then randomly ordered based on a computer generated list of random numbers and divided into groups of fifty telephone numbers to create 23 replicates of 50 numbers each for a total of 1,150 telephone numbers for the study. Further randomization within each household was achieved through the use of the Kish method, which was used to randomly identify individual male and female members of the household to be included in the study.

Interviewer Training

A total of 44 graduate students at Syracuse University were trained as interviewers for the survey. All interviewers were trained by survey supervisors prior to working in the field; they also received a comprehensive training manual detailing proper interview procedures.

During data collection, interviewers attempted a second telephone call to convert all respondents who initially refused to be interviewed. Survey supervisors also verified ten percent of completed questionnaires by contacting these respondents again to confirm the interviews had been conducted.

Following completion of the data collection, supervisors coded the questionnaires for data entry. The statistical package SPSS Version 6.1 was utilized for statistical data analysis. Frequency distributions, cross tabulations, independent t-tests, analyses of variance, and Pearson correlation coefficients were used for statistical analysis of the data.

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Results

The final sample included a total of 413 questionnaires and yielded a procedural response rate of 79%. Compared to U. S. Census data for the Syracuse area, the survey's sample over-represented women and slightly under-represented respondents with lower income and education levels. Table 4 provides percentages for demographic data: Respondents were 58.7% women, 93.7% Caucasian, with mostly high school (22.5%), some college (21.3%), or college graduate (21.5%) levels of education. The most frequently occurring income intervals were between the $20,000 to $50,000 ranges. Table 2 identifies the mean age of respondents as 46.1 years.

Table 1 provides mean and standard deviations for the political issue variables. Responses clustered around neutral (slightly leaning toward agree) for most of the political issues (e.g., crime as the number one problem, increasing the number of police officers, protecting the environment, and helping the homeless). Overall, respondents tended to agree with spending more to improve education and disagree that the U. S. should increase defense spending.

For almost all of the personality traits listed in Table 2, most respondents agreed that the traits described them. The word *aggressive* was the exception, however, with responses aggregating around the neutral category. The aggressive attribute also generated the highest standard deviation of any of the personality traits.

As shown in Table 3, the use of the media for political information demonstrated a wider range of responses. Survey results demonstrate that respondents tended to be somewhat likely to read an election story in a newspaper, watch live televised debates, or watch an election story on a television news program or Cable News Network. Respondents were somewhat unlikely to access the Internet, watch late night talk shows, listen to radio call-in shows, or watch tabloid television programs to obtain political information. Reading news magazines and listening to National Public Radio programs received neutral responses.

Table 4 presents percentages for political affiliation data. The majority of respondents identified with either the Republican (41.1%) or Democratic (33.9%) parties, while 20.7% claimed to be independents and 4.3% identified another political affiliation. Almost equal percentages would chose a Republican (40.7%) or Democratic (39.6%) candidate if they had to vote purely for a candidate's political party affiliation.

In order to develop a gender scale for the personality trait variables, a varimax rotated factor analysis was performed. Results in Table 5 show two factor loadings: The factor *feminine* includes the variables gentle, sensitive, nurturing, and cooperative and the factor *masculine* includes the variables assertive, aggressive, ambitious, and strong. An additive scale of the feminine factors yielded a Cronbach's standardized item alpha of .73; a similar masculine scale generated a standardized item alpha of .64. Creating masculine and feminine scales by applying the corresponding weight from factor analysis

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results did not improve reliability analyses. These factor analysis loadings support the masculine and feminine traits identified in previous research (Bem, 1984; Diamond & Harstock, 1981; Hitchon & Chang, 1995; Huddy & Terkildsen, 1993; Somma, 1992; Welch & Hibbing, 1992).

Crosstabulation results in Table 6 show that more males identify with the Republican (43.6%) than Democratic (29.5%) party. The difference between females party identification was much closer (e.g., a 1.9% difference between Republican and Democratic affiliations). The chi square statistic, however, indicates that these results were not significant. Significant results were achieved for the choice between candidates solely along party lines: 42.4% of males would choose Republican candidates while 44.0% of women would choose Democratic candidates. Far fewer men would choose the Democratic candidate (32.6%) compared to the women who would choose the Republican candidate (39.6%).

The independent t-tests in Table 7 demonstrate differences between male and female respondents on various political issues. Women tended to have stronger agreement that there should be more police officers on the streets, that the government should spend more to help the homeless, and that more money should be spent on education. The other three political issue (increasing defense spending, crime as the number one problem, and protecting endangered wildlife) did not generate statistically significant differences between men and women.

In Table 8, independent t-tests of the personality traits by sex demonstrated that women were more likely than men to describe themselves as ambitious, strong, cooperative, nurturing, sensitive, and gentle. The terms *aggressive* and *assertive* did not generate statistically significant differences between male and female respondents.

Only two of the eight media use variables in Table 9 demonstrated statistically significant differences between men and women. Independent t-tests identify females as somewhat more likely to watch live televised political debates and election stories on tabloid television news programs than males.

Tables 10 and 11 contain one-way analyses of variance to test the study's first and second hypotheses. Results indicate no significant differences between political party identification or political party preference and ranking on the feminine or masculine gender scales. These results show no support for these two hypotheses. The crosstabulation results in Table 6 create an interesting comparison. Based on biological sex rather than gender, females are more likely than males to chose the Democratic candidate, while males are more likely than females to chose the Republican candidate.

The Pearson correlation coefficients in Table 12 provide the final tests for the first two hypotheses. In comparing feminine and masculine respondents and their views on sociotropic political issues (e.g., protecting endangered wildlife, helping the homeless, and improving the quality of education), two significant correlations developed. First, the feminine scale was positively correlated with spending more to help the homeless (as predicted by the study's first hypothesis). Second, the masculine scale was positively correlated with improving the quality of education (contrary to the first hypothesis).

For the egocentric political issues listed in Table 12 (e.g., increased defense spending, crime as the number one problem, and the need for more police officers), only one significant correlation emerged with the gender scales: The more feminine the respondent, the greater agreement that there should be more police officers on the streets. This finding did not support the study's second hypothesis that predicted correlations between the masculine gender scale and egocentric political issues.

Again a comparison of the gender scale results in Table 12 with the biological sex findings in Table 7 proves interesting. For both analyses, female/feminine respondents tended to agree with increasing the number of police officers and spending more to help the homeless. The issue of improving the quality of education, however, generated opposite results: More women agreed with this issue and only the masculine scale generated a significant positive correlation.

In Table 12, the two gender scales are positively correlated; since the femininity and masculinity scales are not mutually exclusive categories, this positive correlation is possible. The independent t-tests for personality traits and biological sex in Table 8 reveal that women are more likely to agree with almost all of the personality traits, which may help to explain this positive correlation between gender scales.

The correlations in Table 13 test the study's final two hypotheses regarding political media sources and gender scale attributes. Four significant correlations emerged: The feminine scale was positively correlated with television news and the Internet, while the masculine scale was positively correlated with Cable News Network programs and the Internet. These findings did not support the third and fourth hypotheses. The biological sex and media source t-tests in Table 9 indicate differences between live televised debates and tabloid television programs (which did not significantly correlate on gender scale results).

Discussion

The fact that this study's results failed to replicate previous political gender gap findings is significant. This study demonstrates that the historical distinction between traditionally "male" and "female" political issues may be changing in today's political climate. This analysis also successfully developed a reliable gender scale which extends conventional telephone survey research methodology.

Table 6 shows limited support for the political party gender gap between women and men identified in previous studies (Abraham, 1995; Abzug, 1984; Baxter & Lansing, 1983; Fitzpatrick, 1995; Huddy & Terkildsen, 1993; Kelber, 1994; Mandel, 1995;

Mueller, 1991; Somma, 1992) continues to exist today. Women were more likely than men to chose a Democratic candidate than a Republican one.

The differences between women and men along social welfare (e.g., *sociotropic*) and personal (e.g., *egocentric*) political issues identified from previous research did not receive clear support in the current study. Table 7 demonstrates that women did show stronger agreement than men on certain environmental and social welfare concerns (e.g., protecting endangered wildlife and helping the homeless). Women, however, also supported a "protective" and "hawkish" stand traditionally attributed to men (e.g., increasing the number of police officers) (Abraham, 1995; Abzug, 1984; Baxter & Lansing, 1983; Fitzpatrick, 1995; Huddy & Terkildsen, 1993; Kelber, 1994; Mandel, 1995; Mueller, 1991; Somma, 1992; and Welch & Hibbing, 1992). Due to heightened levels of crime in the United States over the past 25 years, women may be identifying personal safety as an increasingly important political issue.

Pearson correlations in Table 12 provide insight for future research on gender gap political issues. The three egocentric issues were positively correlated with each other, as were the three sociotropic issues. The negative correlations one would expect between egocentric and sociotropic issues, however, did not emerge (except for increasing defense spending and spending more to help the homeless). In fact, two egocentric issues (e.g., fighting crime and increasing the number of police officers) were positively correlated with most of the sociotropic issues. Future research in this area may conclude that these "traditional" political issues separating men and women may no longer be appropriate categories.

This study also provided one of the first attempts at developing a gender scale for telephone survey research. Factor analysis results in Table 5 demonstrate that the eight personality traits measured for the scale clearly load on two distinct factors. Although Table 8 demonstrates significant differences between men and women for the majority of personality traits measured, women tended to agree with almost all of the traits more than men. Future research in this area should generate methodological analyses for further gender scale development: The influence of social desirability on personality trait responses and the nature of the non-exclusive categorizations of masculine and feminine should be examined.

The results from this study, finally, are informative for future research on conventional and unconventional political media sources. The first five variables listed in Table 13 were identified as "conventional" media sources and were all positively correlated with one another. Of the final five "unconventional" media sources, however, only three positive correlations occurred (e.g., tabloid television news with Cable News Network programs, late night talk shows, and the Internet). All of the conventional sources positively correlated with Cable News Network programs. Call-in radio programs and the Internet also correlated positively with four and three, respectively, of the five unconventional media sources. These findings provide heuristic associations between the use of various political media sources and how they relate to each other.

Table 1. Means and standard deviations for political issue variables.

Variables *	Mean	Std. Deviation	N
More money should be spent to improve the quality of education in the United States.	4.13	1.04	412
It is important for the government to help protect endangered wildlife like the spotted owl.	3.78	0.97	412
Crime is the number one problem facing our country.	3.65	1.13	412
There should be more police officers on the streets in our country.	3.62	0.96	411
The government should spend more to help the homeless.	3.60	1.02	411
The United States must increase defense spending.	2.82	1.07	403

* Responses were coded: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

Table 2. Means and standard deviations for personality trait and age variables.

Variables	Mean	Std. Deviation	N
The word *cooperative* describes me.*	4.23	0.64	398
The word *sensitive* describes me.*	4.18	0.75	398
The word *nurturing* describes me.*	4.02	0.79	392
The word *gentle* describes me.*	3.98	0.73	396
The word *strong* describes me.*	3.94	0.78	398
The word *ambitious* describes me.*	3.94	0.81	395
The word *assertive* describes me.*	3.80	0.90	394
The word *aggressive* describes me.*	3.22	1.12	397
Age (in years)	46.1	16.1	392

* Responses were coded: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

Table 3. Means and standard deviations for media use variables.

Variables *	Mean	Std. Deviation	N
How likely would you be to read a story about the election in newspapers?	3.97	1.33	407
How likely would you be to watch live televised debates?	3.70	1.45	404
How likely would you be to watch a story about the election on a television news program?	3.56	1.36	406
How likely would you be to watch a story about the election on CNN -- Cable News Network?	3.43	1.55	401
How likely would you be to read a story about the election in news magazines like *Time*?	2.93	1.57	406
How likely would you be to listen to campaign discussions on National Public Radio programs?	2.66	1.60	403
How likely would you be to watch a story about the election on tabloid TV programs like *A Current Affair*?	2.44	1.51	401
How likely would you be to listen to campaign discussions on radio call-in shows?	2.00	1.31	405
How likely would you be to watch discussions about the election on late night talk shows like *David Letterman*?	1.77	1.28	406

Table 3 (continued). Means and standard deviations for media use variables.

Variables *	Mean	Std. Deviation	N
How likely would you be to find election information on the Internet or World Wide Web?	1.75	1.32	400

* Responses were coded: 5 = very likely, 4 = somewhat likely, 3 = neutral, 2 = somewhat unlikely, 1 = very unlikely.

Table 4. Percentages for political affiliation and demographic variables.

Variables	%
Which political party do you most closely identify with?	
Republican	41.1
Democrat	33.9
No party or independent	20.7
Other	4.3
	100.0%
	(N=372)
If you were voting and had to choose between two candidates you knew nothing about except their political party, would you choose the Democrat or the Republican?	
Democrat	39.6
Republican	40.7
Neither	18.0
Other	1.7
	100.0%
	(N=356)
Sex	
Female	58.7
Male	41.3
	100.0%
	(N=397)
Race	
White	93.7
Black or African descent	3.6
Hispanic	0.8
Asian	1.0
Native American	0.5
Other	0.6
	100.0%
	(N=394)
Education	
3rd - 12th grade	10.9
High school diploma or GED	22.5
Some college	21.3
Associates degree	12.4
Bachelors degree	21.5
Graduate degree	11.4
	100.0%
	(N=395)

Table 4 (continued). Percentages for political affiliation and demographic variables.

Variables	%
Income	
less than $10,000	6.2
$10,000 - $19,999	10.6
$20,000 - $29,999	14.4
$30,000 - $39,999	14.1
$40,000 - $49,999	15.8
$50,000 - $59,999	11.1
$60,000 - $69,999	7.3
$70,000 - $79,999	9.4
$80,000 or more	11.1
	100.0%
	(N=341)

Table 5. Major factor loadings (varimax rotated) for personality trait variables.

Variables *	Factor 1 Feminine	Factor 2 Masculine
The word *gentle* describes me.	**.81**	-.04
The word *sensitive* describes me.	**.78**	-.04
The word *nurturing* describes me.	**.77**	.11
The word *cooperative* describes me.	**.58**	.18
The word *assertive* describes me.	.05	**.80**
The word *aggressive* describes me.	-.20	**.74**
The word *ambitious* describes me.	.12	**.70**
The word *strong* describes me.	.27	**.52**
Eigenvalue	2.44	1.87
Percent of variance accounted for	30.5%	23.4%

* Responses were coded: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

Table 6. Crosstabulation of political affiliation by respondent's sex.

Which political party do you most closely identify with?	Respondent's sex Male	 Female
Republican	43.6	39.3
Democrat	29.5	37.4
No party or independent	21.8	19.9
Other	5.1	3.4
	100.0% (N=156)	100.0% (N=206)

$X^2 = 2.81$, df = 3, ns
Cramer's V = .09

If you were voting and had to choose between two candidates you knew nothing about except their political party, would you choose the Democrat or the Republican?	Respondent's sex Male	 Female
Democrat	32.6	44.0
Republican	42.4	39.6
Neither/Other*	25.0	16.4
	100.0% (N=144)	100.0% (N=207)

$X^2 = 6.06$, df = 2, $p < .05$
Cramer's V = .13

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* In order to reduce crosstabulation results so that less than 20 percent of cells contained expected frequencies of less than five, the neither and other categories were collapsed into one group.

Table 7. Independent t-tests for political issue variables by sex.

	Respondent's sex				
Variables	Male Means (& SD)	Female Means (& SD)	t value	df	significance
The United States must increase defense spending.*	2.87 (1.08)	2.74 (1.06)	1.17	385	ns
Crime is the number one problem facing our country.*	3.56 (1.14)	3.72 (1.11)	-1.38	394	ns
There should be more police officers on the streets in our country.*	3.41 (0.99)	3.75 (0.92)	-3.46	336	p < .001
It is important for the government to help protect endangered wildlife like the spotted owl.*	3.75 (1.04)	3.81 (0.92)	-0.64	324	ns
The government should spend more to help the homeless.*	3.36 (1.03)	3.74 (0.98)	-3.68	337	p < .001
More money should be spent to improve the quality of education in the United States.*	3.98 (1.11)	4.24 (0.97)	-2.48	395	p < .013

* Responses were coded: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

Table 8. Independent t-tests for personality trait variables by sex.

Variables	Respondent's sex Male Means (& SD)	Female Means (& SD)	t value	df	significance
The word *aggressive* describes me.*	3.30 (1.05)	3.17 (1.17)	1.18	371	ns
The word *assertive* describes me.*	3.76 (0.82)	3.83 (0.95)	-0.76	391	ns
The word *ambitious* describes me.*	3.84 (0.77)	4.02 (0.82)	-2.22	392	$p < .05$
The word *strong* describes me.*	3.81 (0.72)	4.03 (0.81)	-2.78	395	$p < .01$
The word *cooperative* describes me.*	4.11 (0.66)	4.31 (0.62)	-3.05	339	$p < .01$
The word *nurturing* describes me.*	3.64 (0.80)	4.29 (0.68)	-8.28	306	$p < .001$
The word *sensitive* describes me.*	3.95 (0.75)	4.34 (0.70)	-5.28	335	$p < .001$
The word *gentle* describes me.*	3.79 (0.72)	4.12 (0.72)	-4.58	393	$p < .001$

* Responses were coded: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

Table 9. Independent t-tests for media use variables by sex.

Variables	Respondent's sex Male Means (& SD)	Female Means (& SD)	t value	df	significance
How likely would you be to watch a story about the election on a television news program?*	3.45 (1.34)	3.69 (1.33)	-1.71	394	ns
How likely would you be to read a story about the election in newspapers?*	3.90 (1.28)	4.07 (1.31)	-1.31	394	ns
How likely would you be to read a story about the election in news magazines like *Time*?*	2.79 (1.47)	3.04 (1.61)	-1.58	368	ns
How likely would you be to listen to campaign discussions on National Public Radio programs?*	2.81 (1.56)	2.57 (1.61)	1.44	390	ns
How likely would you be to watch live televised debates?*	3.52 (1.47)	3.86 (1.39)	-2.34	333	p < .05
How likely would you be to watch a story about the election on CNN -- Cable News Network?*	3.38 (1.51)	3.49 (1.56)	-0.70	389	ns
How likely would you be to watch a story about the election on tabloid TV programs like *A Current Affair*?*	2.24 (1.32)	2.62 (1.62)	-2.55	381	p < .011

Table 9 (continued). Independent t-tests for media use variables by sex.

	Respondent's sex				
Variables	Male Means (& SD)	Female Means (& SD)	t value	df	significance
How likely would you be to watch discussions about the election on late night talk shows like *David Letterman*?*	1.70 (1.15)	1.82 (1.35)	-0.95	378	ns
How likely would you be to listen to campaign discussions on radio call-in shows?*	2.06 (1.28)	1.98 (1.34)	0.62	392	ns
How likely would you be to find election information on the Internet or World Wide Web?*	1.65 (1.22)	1.80 (1.37)	-1.15	368	ns

* Responses were coded: 5 = very likely, 4 = somewhat likely, 3 = neutral, 2 = somewhat unlikely, 1 = very unlikely.

Table 10. One-way analyses of variance for feminine scale and political party identification; and masculine scale and political party identification.

Variable	Political party identification Republican Mean (SD)	Democrat Mean (SD)	None/Indep. Mean (SD)	F	df	sig.
Feminine Scale*	16.32 (2.16)	16.80 (2.15)	16.13 (2.29)	2.58	340	ns
Masculine Scale**	14.99 (2.39)	15.17 (2.65)	14.64 (2.43)	1.02	341	ns

*The feminine scale is an additive scale containing the following personality trait variables: gentle, sensitive, nurturing, and cooperative. Cronbach's reliability analysis yielded a standardized item alpha of .73. Each personality trait variable was originally coded as: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

**The masculine scale is an additive scale containing the following personality trait variables: assertive, aggressive, ambitious, and strong. Cronbach's reliability analysis yielded a standardized item alpha of .64. Each personality trait variable was originally coded as: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

Table 11. One-way analyses of variance for feminine scale and political candidate preference; and masculine scale and political candidate preference.

Variable	Political candidate preference Democrat Mean (SD)	Republican Mean (SD)	None/Indep. Mean (SD)	F	df	sig.
Feminine Scale*	16.60 (2.22)	16.40 (2.16)	16.56 (2.16)	0.33	337	ns
Masculine Scale**	15.15 (2.57)	14.76 (2.49)	14.90 (2.59)	0.84	340	ns

*The feminine scale is an additive scale containing the following personality trait variables: gentle, sensitive, nurturing, and cooperative. Cronbach's reliability analysis yielded a standardized item alpha of .73. Each personality trait variable was originally coded as: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

**The masculine scale is an additive scale containing the following personality trait variables: assertive, aggressive, ambitious, and strong. Cronbach's reliability analysis yielded a standardized item alpha of .64. Each personality trait variable was originally coded as: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

Table 12. Pearson correlation coefficients for political issues and gender scale variables.

Variables	2.	3.	4.	5.	6.	7.	8.
1. Increase defense spending *	.15[b] (402)	.20[c] (401)	-.03 (402)	-.13[b] (401)	-.05 (402)	-.00 (380)	.00 (382)
2. Crime as number one problem *	—	.33[c] (410)	.06 (411)	.25[c] (410)	.15[b] (411)	.06 (389)	.04 (390)
3. More police officers on streets *		—	.14[b] (410)	.28[c] (409)	.25[c] (410)	.19[c] (389)	.04 (390)
4. Protect endangered wildlife *			—	.36[c] (410)	.31[c] (411)	.05 (390)	-.04 (390)
5. Spend more to help the homeless *				—	.39[c] (410)	.12[a] (388)	.01 (389)
6. Improve the quality of education *					—	.09 (389)	.15[b] (390)
7. Feminine Scale **						—	.11[a] (386)
8. Masculine Scale ***							—

* Responses were coded: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

** The feminine scale is an additive scale containing the following personality trait variables: gentle, sensitive, nurturing, and cooperative. Cronbach's reliability analysis yielded a standardized item alpha of .73. Each personality trait variable was originally coded as: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

***The masculine scale is an additive scale containing the following personality trait variables: assertive, aggressive, ambitious, and strong. Cronbach's reliability analysis yielded a standardized item alpha of .64. Each personality trait variable was originally coded as: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

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[a] p < .05
[b] p < .01
[c] p < .001

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Table 13. Pearson correlation coefficients for political media use and gender scale variables.

Variables	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. Television News *	.20[c] (406)	.16[b] (405)	.10[a] (402)	.48[c] (403)	.35[c] (400)	.19[c] (400)	.07 (405)	.05 (404)	.03 (399)	.11[a] (389)	.02 (390)
2. Newspapers *	—	.29[c] (406)	.13[b] (403)	.26[c] (404)	.21[c] (401)	.07 (401)	.04 (406)	.14[b] (405)	.09 (400)	.06 (389)	.02 (390)
3. News magazines *		—	.28[c] (402)	.21[c] (403)	.28[c] (401)	-.02 (400)	.01 (405)	.11[a] (404)	.17[c] (399)	.01 (388)	.07 (389)
4. National Public Radio programs*			—	.26[c] (401)	.17[c] (397)	-.18[c] (397)	-.05 (402)	.36[c] (402)	.12[a] (397)	.04 (386)	.07 (387)
5. Live televised debates *				—	.36[c] (399)	.06 (399)	.05 (403)	.16[c] (402)	.12[a] (398)	.06 (387)	.06 (388)
6. Cable News Network programs *					—	.13[b] (396)	.03 (400)	.07 (399)	.07 (395)	.02 (384)	.19[c] (385)
7. Tabloid television programs *						—	.21[c] (400)	.05 (400)	.11[a] (398)	.01 (384)	-.02 (385)
8. Late night talk shows *							—	-.03 (404)	.05 (399)	.00 (388)	.07 (389)
9. Call-in radio programs *								—	.09 (400)	-.02 (387)	.04 (388)
10. Internet/World Wide Web *									—	.10[a] (383)	.11[a] (384)
11. Feminine Scale **										—	.11[a] (386)
12. Masculine Scale ***											—

Table 13 (continued). Pearson correlation coefficients for political media use and gender scale variables.

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* Responses were coded: 5 = very likely, 4 = somewhat likely, 3 = neutral, 2 = somewhat unlikely, 1 = very unlikely.
** The feminine scale is an additive scale containing the following personality trait variables: gentle, sensitive, nurturing, and cooperative. Cronbach's reliability analysis yielded a standardized item alpha of .73. Each personality trait variable was originally coded as: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.
***The masculine scale is an additive scale containing the following personality trait variables: assertive, aggressive, ambitious, and strong. Cronbach's reliability analysis yielded a standardized item alpha of .64. Each personality trait variable was originally coded as: 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, 1 = strongly disagree.

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[a] $p < .05$
[b] $p < .01$
[c] $p < .001$

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Television Portrayals and African American Stereotypes: Examination of Television Effects When Direct Contact is Lacking

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RUNNING HEAD : TV, DIRECT CONTACT, AND STEREOTYPES

Television Portrayals and African American Stereotypes: Examination of Television Effects When Direct Contact is Lacking

Abstract

A self-administered survey questionnaire distributed to Japanese international (n = 83) and White (n = 166) students measured stereotypes of African Americans and vicarious contact (television) variables. Results supported process-oriented learning model of behavior, but not cumulative model of cultivation. The study demonstrated that the media could affect one's impression of other races, and further suggested that effects of mass media are more significant when direct information is limited. Implications of an influential role of television in stereotype formation were also discussed.

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Television has been considered an influential source of information that plays a role in constructing viewers' social reality (Hawking & Pingree, 1982; Gerbner, Gross, Morgan, & Signorielli, 1986; Shapiro & Lang, 1991). Since television conveys "simulations of everyday situations" (Daves & Abelman, 1983, p. 261) and since it shares similar characteristics of real life events (e.g., sound and sight), vicarious experience via television may become a part of our social experience (Shapiro & Lang, 1991) and serve as a basis for social judgement such as racial attitudes (Armstrong, Neuendorf, & Brentar, 1992; Matabane, 1988) and ethnic stereotypes (Tan & Fujioka, 1995).

Research needs to address the utility and significance of mediated information relative to the firsthand (direct) information when people make a social judgement (Shapiro & Lang, 1991; Shapiro & McDonald, 1992; Sigelman & Welch, 1994). Shapiro and McDonald (1992), for example, stated that mediated information is more likely to exert influence on those people who have had little or no direct contact with objects because they are lacking in a sufficient method of evaluating information. Armstrong, Neuendorf and Brentar (1992) also reported that media exposure affected White college students' racial attitudes, particularly for those who had little direct interracial contact.

Research has suggested that people tend to have frequent contact with their own group members (ingroup) but have less contact with outgroup members (e.g., Linville, 1982). In addition, due to the disproportion of population between majority (White Anglo) and minority groups (e.g., African Americans), majority group (White Anglo) members tend to have more opportunities to interact with a certain minority group (e.g., African American) members than other minority (e.g., Asian American or Hispanics) groups do interact with African Americans (Blau, 1977; Ellison & Powers, 1994). In other words, interracial contact between members of majority (White) and minority (African American) groups occurs more frequently than such contact between members from the two different minority groups (e.g., African Americans and Asian Americans).

If this is true, then, it is reasonable to assume that international students as a temporarily minority group possess less personal contact with African Americans compared to White (Anglo) students (majority group). This study, then, will examine effects of vicarious contact via television and movies on stereotypes of African Americans among two purposive college samples, White and Japanese international students. This case study tests the key hypothesis that less contact a group has with African Americans, the more television will influence their perceptions of African Americans.

Stereotypes

Stereotypes are defined as "cognitive structures that contain the perceiver's knowledge, beliefs, and expectancies about some human group" (Hamilton & Trolier, 1986, p.133). Once categorized as a member of a certain group, an individual is expected to possess the same characteristics (stereotypes) of that group and is evaluated on the basis of category-based attributes (Hamilton & Trolier, 1986; Fiske & Neuberg, 1990; Fiske & Taylor, 1991). Therefore, stereotypes are a set of beliefs about group characteristics or attributes (Smith, 1991).

African American stereotypes vs Whites' in general

Recent nationwide opinion polls (1991) on ethnic images in the U.S. revealed that of all other ethnic groups (African Americans, Hispanics and Asian Americans) Whites received the most positive (highest) scores in all traits measured (work ethics, wealth, dependency, violence, intelligence and patriotism) (Smith, 1991). African Americans obtained lower evaluations, ranking last in the three traits (violence, lazy and dependence); and next to the last in the wealth and the intelligence trait (Smith, 1991). Another opinion poll by McAneny(1993) also reported that more than one third (37%) of both African American and White adults views blacks as "more likely" than other ethnic groups to commit crimes.

Niemann, Jennings, Rozelle, Baxter and Sullivan (1994) used a free response method and examined the stereotypes of ethnic groups held by college students. Adjectives which were most frequently used for descriptions of African Americans (both male and female) were speak loudly, antagonistic, athletic and dark skin; while, White (Anglo) Americans were described as intelligent, egotistical and pleasant (Neimann et al., 1994).

Ethnic stereotypes may be developed and learned culturally (e.g., Allport, 1954), they can, however, change through individual experience such as personal contact with stereotyped group members (e.g., Desforges, Lord, Ramsey, Manson, Van Leeuwen, West, & Lepper, 1991). Such assumption has been suggested by the Contact hypothesis.

Direct contact and racial attitudes : Contact hypothesis

The contact hypothesis (Allport, 1954; Cook, 1985) predicts that positive personal contact produce a favorable change in racial attitudes and promotes interracial respect and liking. The basic assumption is that favorable interracial contact provides people with great opportunities to observe and learn about other group members, which reduce interracial anxiety, assumed dissimilarity and ethnocentric-based (negative) stereotypes (Stephan & Stephan, 1984). Successful interactions that may produce a favorable outcome of contact are characterized as follows: equal status between the interactors, cooperative, not competitive interaction, pursuit for a mutual goal, intimate rather than casual contact and normative support from authority (Brewer & Miller, 1984; Cook, 1985, Desforges, et al., 1991; Hewstone & Browns, 1986).

Contact hypothesis has been generally supported in experimental settings, but has produced mixed findings in real life situations. Researchers have attributed these results to socioeconomic factors (Jackman & Crane, 1986) and/or disproportion of population between majority and minority groups (Ellison &

Powers, 1994), which may cause a threat to a positive interracial contact. Sigelman and Welch (1993) also speculated a role of mass media in development of racial attitudes, particularly, when personal contact is limited. As a result, this study examines the relationship between vicarious contact and stereotypes of African Americans held by Japanese international and White college students to determine whether influence of media is more significant on Japanese than that on Whites due to Japanese lack of personal contact with African Americans.

Vicarious contact and stereotypes

This study assumes that besides direct contact, vicarious contact (through television and movies) with African Americans affects respondents' perceptions of African Americans. The study generally follows the basic assumption of contact hypothesis which predicts a favorable consequence of interracial contact. It further assumes that vicarious contact is more influential for the Japanese international students than White students due to Japanese lack of direct contact with African Americans. The study is grounded on the following theories and concepts.

Cultivation theory

Cultivation theory predicts the contribution of television to viewer's construction of social reality (Gerbner, Gross, Morgan, & Signorielli, 1986). It assumes that messages of television are accumulatively internalized by viewers as a result of massive exposure (frequency of television viewing) to television's repetitive and uniform messages (Gerbner et al., 1986).

The cultivation research originally considered television messages uniform (e.g., commercially-oriented) across programs and identified television viewing as a ritualistic or non-selective activity (Gerbner & Gross, 1976). Recent research, however, has looked at the relationship between television viewing and viewers' beliefs about the real world by taking a specific content (e.g., program genres such as soap operas) into account (e.g., Howkins & Pingree, 1981; Perse, 1986; Potter & Chang, 1990) and reported a stronger correlation between exposure to specific content of television and viewer's beliefs about that specific content. From the cultivation perspective, repetitive exposure to television portrayals of African Americans may lead to viewers' acceptance of these messages. How and what has been portrayed about African Americans via entertainment television and movies will be discussed below.

African Americans in entertainment television programs and movies

MacDonald's (1992) study on portrayals of African Americans in television reported that African Americans were mostly cast as comedians in the 1970's, in which they were portrayed as working or lower-middle class blacks. However, the presentation of blacks has been improved and increasingly visible since the early 1980's (MacDonald, 1992). Currently African Americans appear frequently in primetime entertainment television programs (Gray, 1989), and play various roles including black professional and middle-class (Matabane, 1988; Gray, 1989). Although under-class African Americans appear as a source of social problems (e.g., urban crime) in news account (Gray, 1989), in entertainment programs, particularly in primetime, African Americans have been portrayed as charming and attractive individuals who achieve their success through self-efforts such as hard work, discipline and determination (Gray, 1989).

Cultivation of these relatively positive portrayals of African American in entertainment context was supported by some empirical studies. Matabane (1988), for example, reported the positive relationship between frequent television viewing and Afro-Americans' favorable views about racial environment. Frequent television viewers of Afro-Americans compared to non-frequent viewers reported that racial integration was more prevalent, White and African Americans were more similar and more African Americans were middle-class (Matabane, 1988). Armstrong et al (1992) also found the positive relationship between consuming entertainment content of television and White students' views of African Americans as socio-economically "better-off". Given positive portrayals of African Americans in entertainment television programs (MacDonald, 1992; Matabane, 1988), frequent television viewing may cultivate favorable stereotypes of African Americans among the Japanese international and White Anglo college students.

In contrast to the cumulative (quantity) emphasis of cultivation theory, social cognitive theory stresses cognitive processes of television viewing, which is discussed below.

Social cognitive theory

The social cognitive theory (Bandura, 1977, 1986) can provide this study with a theoretical explanation of how people learn information through symbolic presentation of television. The social cognitive theory assumes that vicarious learning via television takes place through a series of cognitive processes including attention, retention, motor reproduction and motivation. According to Bandura (1977), behaviors and information that are repeated, perceived as real, distinct, functional and salient are more likely to be attended to, thus, more likely to be learned. When observing an event which receives some kind of rewards (e.g., social approval or not being punished) and when the observer feels confident to perform/learn, then symbolic learning is facilitated (Bandura, 1977).

It must be noted that the social cognitive theory places much weight on observer's cognitive activities when consuming television messages. It suggests that one's evaluations and interpretations (positive or negative) of television messages affect consequences of television viewing (Bandura, 1986; Tan, 1986). Television messages, thus, must be cognitively processed (evaluated and interpreted) by viewers before any influence occurs. From this viewpoint, what viewers actually see about African Americans on television and how they interpret (e.g., pleasant or unpleasant) that information, rather than television viewing per se, have a significance in forming stereotypes of African Americans.

Instrumental learning theories

The study basically examines the contact hypothesis in a vicarious context. The basic assumption of the contact hypothesis is that positive contact promotes favorable racial attitudes; while, lack of such contact or negative contact creates unfavorable attitudes toward other race groups (Allport, 1954; Amir, 1967). This contention is theoretically supported by an instrumental learning theories (e.g., Homans, 1954) which suggested that people behave in a way that they may maximize rewards (e. g., pleasant experience) and avoid punishment (e.g., unpleasant experience). In a human interaction, people like a person who provides them with favorable experience; while dislike a person who gives an unpleasant experience (Berscheid & Walster, 1969). The social cognitive and instrumental leaning theories, thus, suggest that vicarious contact with African Americans (television portrayals) which is evaluated by viewers as positive or favorable leads to positive stereotypes of African Americans and unfavorable vicarious contact (negative self-evaluation of television portrayals) results in negative stereotypes.

The current study not only examines the effects of vicarious contact on stereotypes but also tests the different influence of television for the Japanese international college students than that for White Anglo college students.

Perceived reality about television portrayals

Many have suggested that viewers' perceived reality about television messages mediate acceptance of television content (Hawkins & Pingree, 1980; Perse, 1986; Potter, 1986; Rubin, Perse, & Taylor, 1988). In general, the more the messages of television are perceived as real or accurate, the stronger the influence (Rubin, Perse, & Taylor, 1985).

According to Potter (1986), there are at least three components of perceived reality: 1) magic window - beliefs about television as a representation of the real world; 2) Instruction - perceived applicability of television presentation to viewers' own real life; and 3) identity - perceived similarity between television characters (or situations) and viewer. Although people differ in their level of perceived reality (Potter, 1988), the following characteristics make a real-fiction distinction more difficult: 1) lacking in cognitive skills (Potter, 1988); 2) lacking in direct experience with an event (Shapiro & Lang, 1991); and 3) some personalities such as loneliness (Rubin et al., 1985). In general, those individuals who are considered more susceptible to television messages are children, adolescents, new comers to the country such as immigrants, and foreign audience due to their lack of appropriate method of evaluating mediated information (e.g., Zohoori, 1988) or motivational factor such as information seeking (Chaffe, Nass, & Yang; 1990; Tan, Nelson, Dong, & Tan, 1996). Considering that international students may possess little direct interaction (lack of direct experience) with African Americans, Japanese international students may also fit in this category.

Information accessibility and stereotyping

The assumption that the stronger influence of television on stereotyping for the Japanese international students than that for

White Anglo students may also be supported by the concept of accessibility in cognition and memory. Basic assumption is that people tend to use heuristics or cognitive shortcuts which allow them to reduce elaborate problem solving to more economical judgmental operations (Tversky & Kahneman, 1974). According to Wyer and Srull (1989), when forming impressions of others, we search our memory heuristically, that is, we seek and use information which is the most accessible (easily retrieved) and save extra cognitive efforts (e.g., further search) unless it is required. Information that is activated recently and/or retrieved frequently is considered highly accessible (Fiske & Taylor, 1992) since it is placed/stored close to the top of our memory bin (Wyer & Srull, 1989).

Recalling that African Americans appear relatively frequently in television and movies (e.g., MacDonald, 1992), information conveyed through television must be highly available to the Japanese international students. Moreover, due to the limited personal interaction with African Americans, the Japanese students may compensate for their lack of firsthand information about African Americans by relying on television portrayals when making social judgements about African Americans. The more frequently the television information is used, the more accessible the television information will be. This can also be applied to white students. In fact, Shrum and O'Guinn (1993) suggested that greater frequency and more recency of television viewing may make television messages more accessible. Considering, however, that international students have less direct contact with African Americans, (firsthand information is hardly be recent nor frequent), this study predicts stronger media influence on Japanese students than on white students.

Hypotheses and hypothesized model

The current study tests the following hypotheses to examine the effects of vicarious contact on stereotypes of African Americans among Japanese and White college students. The proposed model (Figure 1) reflects two theoretical approaches to predict television effects on stereotyping, cultivation route (television viewing to stereotyping) and social cognitive route (television viewing to valenced evaluation of television messages to stereotyping).

H-1. The greater the number of TV programs/movies (including as one of the main characters African Americans) viewed by respondents, the more positive the stereotypes.

Hypothesis 1 tests the cultivation function of television. Since African Americans are positively portrayed in entertainment television programs, frequent exposure to that content leads to positive stereotypes.

H-2. The greater the number of positive portrayals (attributes) perceived in television the more positive the stereotypes.

H-3. The greater the number of negative portrayals (attributes) perceived in television, the more negative the stereotypes.

Hypotheses 2 and 3 are derived from social cognitive and instrumental learning theories of stereotyping, which suggest that positive or rewarding interaction induces positive outcomes of contact; unfavorable interaction, on the other hand, leads to negative consequences.

H-4. The effects of vicarious contact (TV/movies) on stereotypes of African Americans are stronger for Japanese international students than those for White students.

Hypothesis 4 tests the significant influence of television when direct information is limited. This is derived from the concept of accessibility in cognition and memory which suggests that people tend to seek memory and use information that is the most accessible (easily to retrieve) to form their own judgements (Wyer & Srull, 1989).

Methodology

A self-administered survey questionnaire was distributed to 83 Japanese international college students (44.6% male; 55.4% female; 18.1% Intensive American Language Center students) and 166 White (Anglo) students (43.4% male; 56.6% female) who were enrolled in an introductory mass communication class at a public university in the Northwest. Japanese sample was used because they met the key requirement, limited direct contact with African Americans and because they are one of the largest minority groups on campus. Average age of the Japanese respondents was 23.5 years and that of the White respondents was 19.6 years. White students outnumbered Japanese students due to the difference in population on campus. College samples, although not a representative of population, were used due to their relative homogeneity in demographic characteristics, which allowed the study to clarify television effects better. The survey questionnaire measured the following dependent and independent variables:

Dependent variable - Stereotypes

Stereotypes are measured by respondents' description of a African Americans. A set of 14 pairs of contrasting adjectives were provided with a 7 point semantic differential scale. The adjectives used were based on Smith's (1991) national survey on racial image. These attributes include wealth (rich/poor), work ethic (hard working/lazy), violence (not/violence-prone), intelligence (un/intelligent), dependency (prefer to self-supporting/live off welfare), and patriotism (un/patriotic). Some attributes (crime, trust, family ties, education, drug/alcohol use, and racial tolerance) were added in a graduate seminar on intercultural communication to obtain better images of race groups in the U.S. today. The positive and negative ends of each bipolar items were determined by consensus among seminar participants (Table 1). Decisions were made on the basis of the criterion, which indicates the positive attribute in the United States today. Reversed coding was employed so that positive and negative ends were consistent for each set of adjectives. The data were factor analyzed separately by group (Japanese and White) to yield final stereotype measures for each.

Independent variables - Vicarious (TV) contact

Vicarious contact (media) measures include:

1) Frequency of television/movies viewing was measured by asking

respondents to list television entertainment programs and movies they have seen recently, that included as one of the main characters African Americans. The number of responses (TV programs and movies) listed was used for one of the predictor variables.

The use of content specific measure reflects the current contention over the utility of global (total TV viewing) measure to examine media influence (e. g., Potter, 1993). This question also served as a priming question which attempted to differentiate respondent's stereotype beliefs about African Americans (which were measured at the very beginning of the questionnaire) from the portrayals of African Americans perceived in television/movies (which were measured immediately after this question).

2) Descriptions or evaluations of TV/movie portrayals of African Americans were measured by asking respondents to first provide adjectives/portrayals for African Americans that stand out for respondents, and then to indicate a meaning of each response by writing either "+" (positive), "-" (negative) or "0" (neutral). Each response was coded on the basis of respondent's self-evaluation and calculated to yield two affective evaluation variables, the number of perceived negative and perceived positive television portrayals.

This procedure is adapted from free response methods of examining stereotypes, which is said to induce more schematic responses from respondents (Devine & Baker, 1991; Niemann, Jennings, Rozelle, Baxter, & Sullivan, 1994). Self-description and self-evaluation processes were employed to reduce undesirable measurement errors (e.g., researcher's bias) and obtain relatively accurate data about what respondents actually received and interpret from televisions and movies. Examples of self-evaluation of African American television portrayals were shown in Table 1.

Direct contact and perceived reality

Personal contact with African Americans was measured by asking how often respondents have contact with African Americans (a five point scale; 5 = very often...1 = no contact) formally (in class/at work) and socially (outside the class/work). Perceived reality about television was measured by asking how realistically television presents life in general (1-5 point likert scale; 5 = very realistically). Besides these variables, demographic information such as sex, year in school and the length of the stay in the U.S. (only for Japanese sample) was also gathered for use as control variables.

Results

Personal and Vicarious Contact

One of the assumptions of this study was that international Japanese students possess less personal contact with African Americans compared to that of White college students. The study confirmed this assumption via student's t-test as follows:

Personal contact with African Americans reported by the Japanese students was significantly lower than that of White students in both formal ($\underline{M}$ = 2.13; $\underline{SD}$ =.98 for Japanese; $\underline{M}$ =3.27; $\underline{SD}$ = 1.01 for White; 5 = very often; $\underline{T}$ =8.3; $\underline{p}$ =.000) and social ($\underline{M}$ = 2.03; $\underline{SD}$ = 1.05 for Japanese; $\underline{M}$ = 3.10; $\underline{SD}$ = 1.19 for White;

T = 6.9; p =.000) context. These results indicated that Japanese students seldom interacted with African Americans formally or socially; while, White students had frequent contact with them.

In addition, the number of television programs and movies (including African Americans) seen by the Japanese (M = 1.35; SD = 1.49) was substantially fewer than that of White students (M = 2.19; SD = 1.61; T = 3.85; p =.0000). This was also true when comparing the average of positive attributes seen (M = 1.21; SD = 1.50 for Japanese; M = 1.91; SD = 1.45 for White; T = 3.49; p = .0007) and negative attributes (M = 0.78; SD = 1.18 for Japanese; M = 1.33; SD = 1.43 for White; T = 3.22; p = .001). These results clearly indicate that Japanese respondents had fewer opportunities than did White respondents to observe and learn about African Americans.

Perceived realism

Although both Japanese (M = 2.8; SD = .87) and White students (M = 2.5; SD = .75; 5 = very realistically) do not think that television portrays life too realistically, the Japanese international students' scores for perceived realism was significantly higher (T = 2.4; P = .01; TV as more realistic) than that for White students.

Stereotypes of African Americans

Table 2 indicated that although overall ratings of stereotypes of African Americans obtained from both Japanese (M = 3.4; SD = .5) and White (M = 3.8; SD = .7; 7 = the most positive; 4 = midpoint) respondents were negative, Japanese overall ratings were significantly lower (negative) than those of Whites (T = 4.54; p =.0000). Japanese respondents rated African Americans substantially lower than Whites in the following traits: rich (+), hard working (+), intelligence (+), trust (+), drug dealing (-), and educated (+). These results basically confirm the predicted direction of the contact hypothesis, lack of contact leads to negative evaluations.

As Table 3 shows, for the Japanese sample, four stereotype factors emerged by using a Verimax factor rotation method. These factors include Violence (violence prone, drug use, alcohol abuse, and drug dealing; Cronbach alpha = .77); Trust (trust, crime and hard wording; Cronbach alpha = .66), Rich (intelligence, rich, patriotism, and education; Cronbach alpha = .61) and Family ties (welfare, tolerance and family ties Cronbach alpha = -.21). The forth factor was identified as unreliable, thus, excluded from the further analysis.

For the White sample (Table 4), three stereotype factors included Violence (drug dealing, crime, violence prone, and alcohol abuse; Cronbach alpha = .81); Trust (intelligence, hard working, trust, tolerance, patriotism and self reliance; Cronbach alpha = .77) and Rich (rich, education, family ties and drug use; Cronbach alpha = .41).

Goodness of Fit Test

The study tested hypothesized models and hypotheses by using structural equation analysis. The hypothesized model was evaluated on the basis of Chi-square goodness of fit test. Non significant

Chi-square indicates a "good fit" of data to the model. The study also used two ad-hoc tests, the Wald test for evaluating nonsignificant parameters and the Lagrange Multiple test for adding parameters to the model (Bentler, 1993).

In evaluating each model, demographic variables such as sex (1 = male; -1 = female) and year in school (1 = freshman ..5= graduate students for White sample; 1= IALC student 2 = freshman..6 = graduate student for Japanese sample) were entered in an equation. The length of the stay in the U.S. (U.S. Time : 1 = less than 1 year; 2 = 1 year to 2 years and 11 months; 3 = 3 years to 4 years and 11 months; and 4 = 5 years and more) was also included when analyzing Japanese data.

As figure 2-7 show, as indicated by non significant Chi-square, all of the models were evaluated as a good model (data fit the model) for each of the stereotype factors across samples.

Testing Hypotheses

Japanese sample : Hypothesis 1-3

Hypothesis 1 predicted a positive relationship between the frequency of vicarious contact (the number of TV/movie programs seen) and stereotypes. The study (Figure 2-4) did not find any indication to support that assumption, as indicated by non significant paths from Number of television program to stereotype factors. H-1, thus, cannot be accepted.

Hypothesis 2 tested the effect of perceived positive TV portrayals on stereotypes. Figure 2 and 3 showed partial support in the trust (B =.37; p <.01) and rich (B = .27; p < .05) factors.

The results of the positive path coefficient mean that the greater the number of positive attributes respondents perceived in television, the more positive the stereotype, which agrees with the hypothesized direction. However, perceiving positive TV attributes did not affect Violence factor. H-2 is partially supported with these findings.

Hypothesis 3 predicted negative relationships between the number of perceived negative TV portrayals and stereotypes. As indicated by non significant paths from perceived negative TV attributes to stereotype factors, the result did not support this prediction. H-3 was not accepted.

White Sample: Hypothesis 1-3

Final models were shown in Figure 5-7. Neither the number of television programs/movie programs seen nor the number of positive attributes perceived in television affected respondents' stereotypes, as indicated by non significant paths from these two television variables to stereotype factors. Hypothesis 1 and 2 were not accepted with these results.

The number of negative TV portrayals, however, produced partial support for Hypothesis 3 with significant path to results to Violence ($\underline{B} = -.17$; $\underline{p} < .05$) and Trust ($\underline{B} = -.19$; $\underline{p} < .05$) factors. The results of the significant negative paths means that the greater the number of negative attributes perceived in television, the more negative the stereotypes, which is consistent with the hypothesis. Since the perceived negative TV portrayal variable failed to produce significant influence, H-3 was partially supported.

Hypothesis 4 - Constraint analysis

Hypothesis 4 predicted stronger effects of vicarious contact on Japanese students (stereotypes) compared to those effects on White students. Hypothesis 4 was evaluated with a constraint analysis which tested the null hypothesis of the equality of some parameters (paths) across populations (Bentler, 1993). Significant Chi-square indicates that the two paths are not the same in magnitude. Model comparisons were made between similar constructs (e.g., Japanese Violence vs. White's Violence factor) .

Table 5 showed two significant results created by the number of perceived positive TV portrayals in Trust ($\underline{X}^2 = 5.66$; $p = .02$) and Rich ($\underline{X}^2 = 5.34$; $p = .02$) factors. These results indicate that the path coefficient of the perceived positive portrayals between the two groups was not the same or significantly different. In the two significant instances, the strength of the path coefficient was greater for the Japanese sample (e.g., $\underline{B} = .37$; $\underline{p} < .01$ for the trust factor) than that for the White sample ($\underline{B} = -.031$; not significant), consistent with the hypothesis. The perceived positive TV portrayals exerted more substantial influence on Japanese respondents' views of African Americans than that on Whites'. Since no significant difference was found in the other two media variables (the number of TV/movies seen and the perceived negative TV portrayals) between the two groups, as indicated by non significant Chi-square, H-4 was partially accepted.

Discussion and Conclusion

This study clearly suggested that respondents' evaluations (positive or negative) of television portrayals, not the number of television programs/movies seen, significantly affected stereotypes of African Americans. Exposure to television portrayals itself did not directly affect respondents' perceptions across samples. Learning theories, thus, seem to be more efficient than cumulative assumptions suggested by the Cultivation theory when explaining the relationships between the vicarious contact and stereotypes.

The study provided some evidence that television messages had significant impact on viewers' perception when firsthand information is lacking. The number of perceived positive TV attributes of African Americans not only significantly induced Japanese international students' positive views of African Americans but also substantially differently affected Japanese perceptions than that of White students. Considering the fact that the Japanese students had significantly less vicarious contact (number of television programs seen as well as the number of perceived negative/positive attributes) than White students, these findings are striking.

It must be noted that although frequency of vicarious contact (television/movie viewing) did not directly affect respondents' formation of stereotypes, it did exert indirect influence through affective evaluation (positive route for Japanese; negative route for Whites) variables. For example, the result indicating the strong path coefficient ($\underline{B} = .54$; $\underline{p} < .001$ for Japanese sample) from the number of television programs and movies seen to perceived positive television portrayals suggested the indirect effects of the frequency of television viewing on stereotypes (trust and rich factors) via the variable of perceived positive television portrayals.

The results indicating no significant influence of the perceived negative TV portrayals on the Japanese respondents' stereotypes may reflect the relatively low number of negative TV attributes of African Americans ($\underline{M} = .78$; $\underline{SD} = 1.18$) reported by Japanese respondents. Moreover, since Japanese respondents' ratings of stereotypes of African Americans were considerably low in average, a "flooring effect" may be operating. These low ratings reduce the amount of variation in the variable. Therefore, it is more difficult to assess a hypothesis which predicts negative effects (changes in a negative direction; lower in rating scores) with subjects who possess very low ratings (Vogt, 1993) such as the Japanese respondents in this study.

The study found that perceived negative portrayals affected White students' stereotypes, but not perceived positive portrayals did. This can be explained by the negativity effect which refers to the fact that unlikable or negative information receives more weight when observers forming an impression of actors (Fiske, 1980; Hamilton & Zanna, 1972; Reeder, & Coovert, 1986). In addition, negative messages arouse people more than positive messages (Lang, Dhillon & Dong, 1995). Although students can remember both valenced television portrayals, negative portrayals induced strong unpleasant emotional state, which affect their evaluation of African Americans. Perceived negative portrayals of African Americans were, thus, significantly related to respondents' stereotypes.

The result that significant positive views of African Americans were held by White female respondents ($\underline{B}$ = .32; $\underline{p}$ < .001; 1 = male; -1 = female) on rich traits must reflect the fact that females have more formal contact ($\underline{M}$ = 3.41; $\underline{SD}$ = 1.00; 5 = very frequently) with African Americans than male respondents ($\underline{M}$ = 3.08; $\underline{SD}$ = 1.02; $\underline{T}$ = - 2.10; $\underline{p}$ = .04) and that formal contact has positive relationship with the rich factor ($\underline{r}$ = .18; $\underline{p}$ = .02). Since rich traits (rich, education, and family ties) are observed easily than other personal traits, formal contact might affect their perceptions.

The study had some limitations such as small sample size and possible measurement errors. It mainly focused on TV entertainment programs and movies, yet other genres (e.g., news) also need to be considered to further understanding of the role of vicarious contact in formation of stereotypes. Also, the study only used Japanese international students. Future research should include a replication of the study in different populations to verify the significant role of media in forming an impression of others when one's firsthand information (direct contact) is limited. This can be done by comparing media effects between the two samples (as was done in this study) or within a sample based on the level of direct encounter with a certain group.

Some practical implications suggested by this study include the utility of mass media in stereotypes reduction. The results indicated the considerably negative stereotypes of African Americans held by Japanese international students. The study, however, found the perceived positive portrayals of African Americans effective in reducing such negativity. In fact, stereotype literature suggested that it is more effective to reduce stereotype when stereotype-discrepant information is displayed across many stereotyped members (e.g., a variety of positive African American models on TV) than when it is concentrated in a few stereotyped members such as intimate friends (Hewstone, 1987; Hewstone & Brown, 1986; Johnston & Hewstone, 1994). Television seems to have a great potential for stereotype reduction.

In sum, the study suggests that affective evaluation of television portrayals significantly contributes to the formation of ethnic stereotypes. That television influence on Japanese perceptions was not only significant but substantially different in nature than that on Whites' is especially important for a further understanding of television effects.

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Table 1

Examples of Self-evaluation of Television Portrayals of African Americans: Adjective Valence and Adjective Listed

Valence	Japanese	White
Positive	Fast	Hard working
	Active	Caring
	Athletic	Wise
	Humorous	Smart
	Fanny	Successful
	Musical	Educated
	Strong	Intelligent
	Intelligent	Funny
	Smart	Family-oriented
	Good looking	Leader
	Cheerful	Rich
	Friendly	Respected
Negative	Noisy	Criminals
	Loud	Arrogant
	Cold	Bossy
	Violent	Angry
	Uneducated	Complaining
	Poor	Violent
	Talkative	Gang involvement
	Aggressive	Poor
	Rough Spoke	Rude
	Hot Temper	Lazy
	Rude	Drug dealers
Neutral	Black	Old
	Cool	Street wise
	Powerful	Fast
	Calm	Funny
	Dysfunctional	Middle class
	Easy Going	Fighting to survive
		Vocal

Table 2 Mean Scores for Stereotype Items: Ratings of African Americans by White and Japanese Students

Stereotypes	Whites (n = 166) M	SD	Japanese (n = 83) M	SD
Rich (+)/ Poor (-)	3.67_a	.78	3.00_b	.93
Hard Working (+)/ Lazy (-)	4.00_a	1.05	3.45_b	1.25
Not (+)/ Violence Prone (-)	2.98_a	1.19	2.75_a	1.02
Intelligent (+)/ Not Intelligent (-)	4.50_a	1.13	3.75_b	1.07
Prefer Self Supporting (+) Live Off Welfare (-)	4.00_a	1.42	3.72_a	1.48
Patriotic (+)/Unpatriotic (-)	3.88_a	1.36	4.23_a	1.52
Do not (+)/ Likely to Commit Crimes (-)	3.02_a	1.14	2.76_a	1.15
Can Be Trusted (+)/ Can't be Trusted (-)	4.34_a	1.30	3.41_b	1.30
Do not (+)/ Likely to use drugs (-)	3.29_a	1.17	3.01_a	1.44
Strong Family Ties (+)/ Not Strong Ties (-)	4.76_a	1.45	4.78_a	1.59
Do not (+)/ Likely to deal drugs (-)	3.07_a	1.09	2.46_b	.99
Educated (+)/ Not educated (-)	4.18_a	1.15	2.99_b	.93
Tolerant-Other Races (+)/ Not Tolerant Oth Races (-)	3.40_a	1.54	3.48_a	1.57
Do not (+)/ Likely to abuse alcohol (-)	3.44_a	1.02	3.24_a	1.30
Overall	3.75_a	.68	3.36_b	.58

Note. For all entries, 7=positive stereotype and 1=negative stereotype. The positive end of the stereotype is indicated as "+"; while the negative end is indicated as "-". Means in the same row that do not share subscripts differ at $p < .05$ by the ttest.

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Table 3

African American Stereotype Factors: Japanese Sample

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	COMMUNALITY ESTIMATES
Factor 1 : Violence					
Violent (-)	.74	.26	.11	-.14	.64
Use Drugs (-)	.70	-.01	.13	.23	.55
Abuse Alcohol (-)	.69	.16	.11	.24	.58
Deal Drugs	.65	.55	-.00	.03	.73
Factor 2 : Trust					
Trust (+)	.05	.87	.07	.13	.67
Crime (-)	.26	.72	.06	-.01	.59
Lazy (-)	.17	.61	.36	-.02	.53
Factor 3 : Rich					
Intelligent (+)	.15	.36	.69	.02	.63
Rich (+)	.53	-.01	.66	-.03	.73
Patriotic (+)	-.45	-.08	.65	-.10	.64
Educated (+)	.36	.17	.58	.21	.54
Factor 4 : Family Ties					
Welfare (-)	-.02	.12	-.01	.82	.68
Tolerant (+)	.14	.08	.04	.66	.47
Family Ties (+)	-.15	.41	-.02	-.56	.51
VAF	2.70	2.30	1.86	1.62	
Cronbach Alpha	.77	.66	.61	-.21	

Note. The positive end of the stereotype is indicated as "+"; while the negative end is indicated as "-". VAF = Variance explained by each factor. Total Communality Estimate = 8.48. Final solution with varimax rotation.

Table 4

African American Stereotype Factors: White Sample

	FACTOR 1	FACTOR 2	FACTOR 3	COMMUNALITY ESTIMATES
Factor 1 : Violence				
Deal Drugs (-)	.82	.23	-.02	.73
Crime (-)	.77	.18	.27	.70
Violent (-)	.73	.04	.27	.61
Abuse Alcohol (-)	.73	.11	.00	.55
Factor 2 : Trust				
Intelligence (+)	-.07	.74	.26	.62
Lazy (-)	.12	.74	.17	.59
Tolerant (+)	.21	.65	.04	.47
Patriotic (+)	.15	.57	.09	.36
Trust (+)	.30	.49	.34	.45
Welfare (-)	.35	.44	.35	.44
Factor 3 : Rich				
Rich (+)	.12	.06	.67	.47
Educated (+)	.19	.40	.67	.64
Family Ties (+)	.06	.23	.46	.27
Use Drug (-)	.43	.43	-.44	.57
VAF	2.87	2.78	1.80	
Cronbach Alpha	.81	.77	.41	

Note. The positive end of the stereotype is indicated as “+”; while the negative end is indicated as “-”. VAF = Variance explained by each factor. Total communality estimate = 7.45. Final solution with varimax rotation.

Table 5

Constraint analysis of vicarious contact effects

Factor Contact Variables	Japanese	White	*X*	*p*
Factor 1(V1) : Violence				
Positive TV Port (V6)	(1,V1,V6) -	(2,V1,V6)	.90	.34
Negative TV Port (V7)	(1,V1,V7) -	(2,V1,V7)	.89	.34
No. of TV/Movies (V8)	(1,V1,V8) -	(2,V1,V8)	.01	.92
Factor 2 (V2) : Trust				
Positive TV Port (V6)	(1,V2,V6) -	(2,V2,V6)	5.66	.02
Negative TV Port (V7)	(1,V2,V7) -	(2,V2,V7)	2.77	.10
No. of TV/Movies (V8)	(1,V2,V8) -	(2,V2,V8)	.37	.55
Factor 3 (V3) : Rich				
Positive TV Port (V6)	(1,V3,V6) -	(2,V3,V6)	5.34	.02
Negative TV Port (V7)	(1,V3,V7) -	(2,V3,V7)	.00	.95
No. of TV/Movies (V8)	(1,V3,V8) -	(2,V3,V8)	.05	.81
Factor 3-2 : Intelligence				
Positive TV Port (V6)	(1,V3,V6) -	(2,V2,V6)	2.70	.10
Negative TV Port (V7)	(1,V3,V7) -	(2,V2,V7)	.21	.64
No. of TV/Movies (V8)	(1,V3,V8) -	(2,V2,V8)	.16	.69

Note. Lagrange Multiple test for releasing constraints tests a null hypothesis of (B1 for Group 1)-(B1 for Group 2) = 0.

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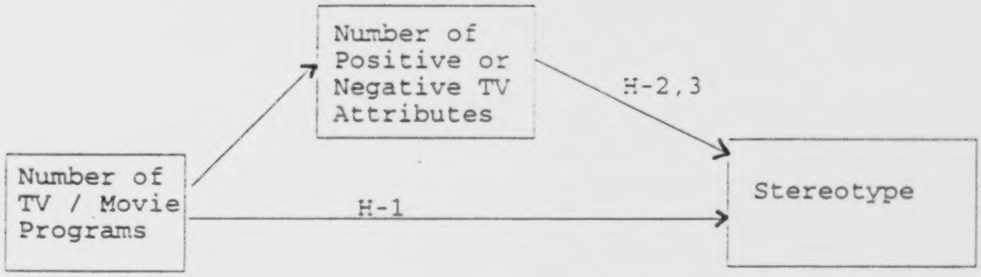
Number of Positive or Negative TV Attributes
H-2,3
Number of TV / Movie Programs
H-1
Stereotype

Figure 1. Cultivation (H-1)and Social Cognitive (H-2,3)Routes to Stereotype.

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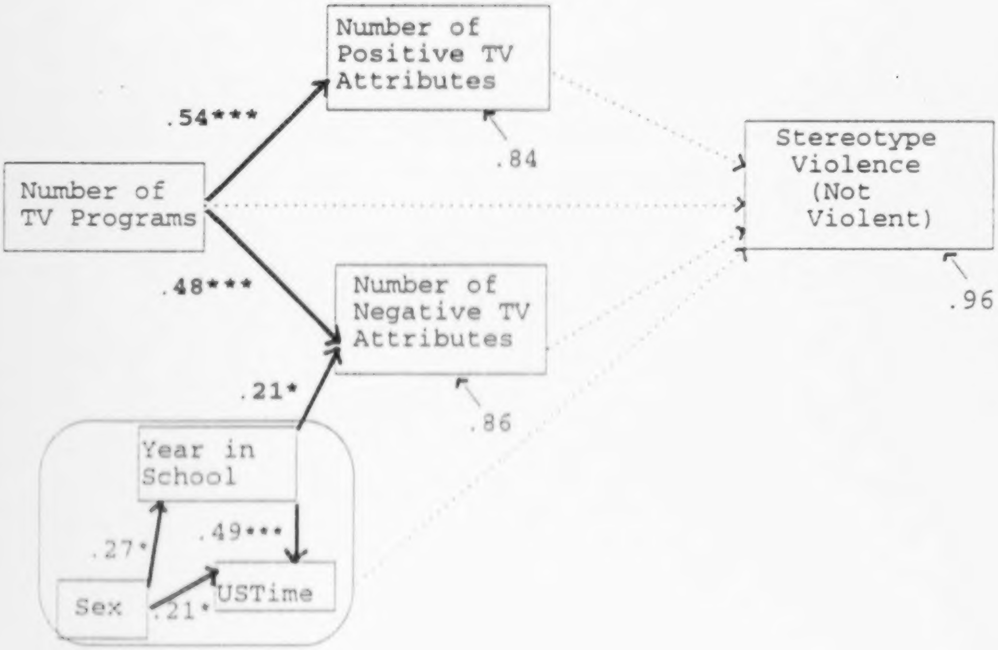
Number of Positive TV Attributes
.54***
.84
Stereotype Violence (Not Violent)
Number of TV Programs
.96
.48***
Number of Negative TV Attributes
.21*
.86
Year in School
.27*
.49***
Sex
.21*
USTime

Figure 2. Cultivation and Social Cognitive Routes to Stereotyping: Japanese sample; Factor 1.

Notes. $X^2(9, 79) = 9.07$; $p = .43$; Normed Fit Index = .91; NonNormed Fit Index = .99. $^*p < .05$. $^{**}p < .01$. $^{***}p < .001$. Demographic variables were entered separately in equation.

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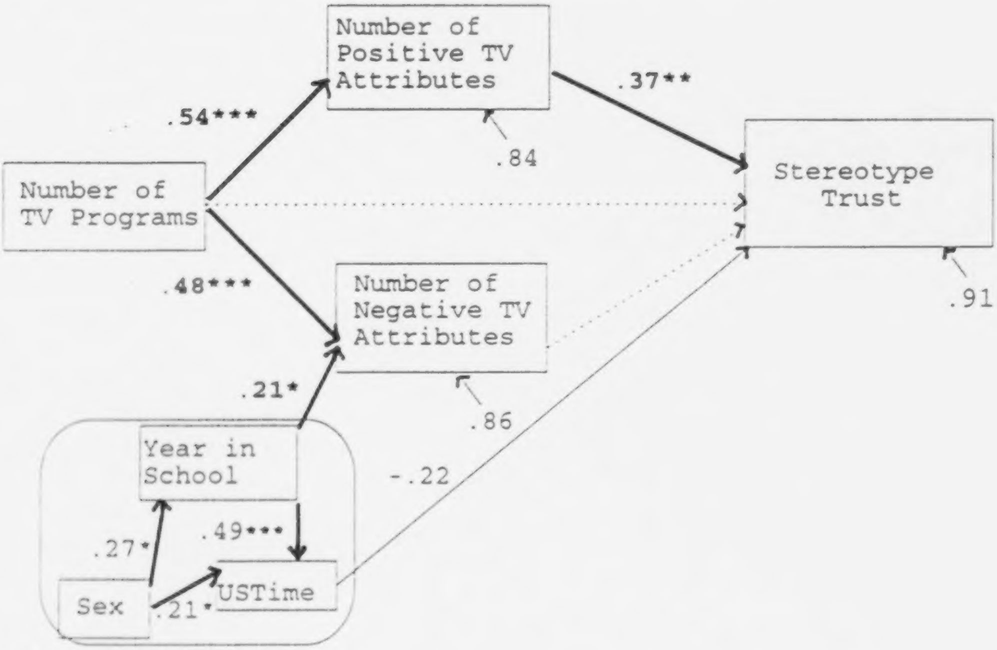

Figure 3. Cultivation and Social Cognitive Routes to Stereotyping: Japanese sample; Factor 2.

Notes. $X^2(9, 79) = 9.07$; $p = .43$; Normed Fit Index = .92; NonNormed Fit Index = 1.00. *$p < .05$. **$p < .01$. ***$p < .001$. Demographic variables were entered separately in equation.

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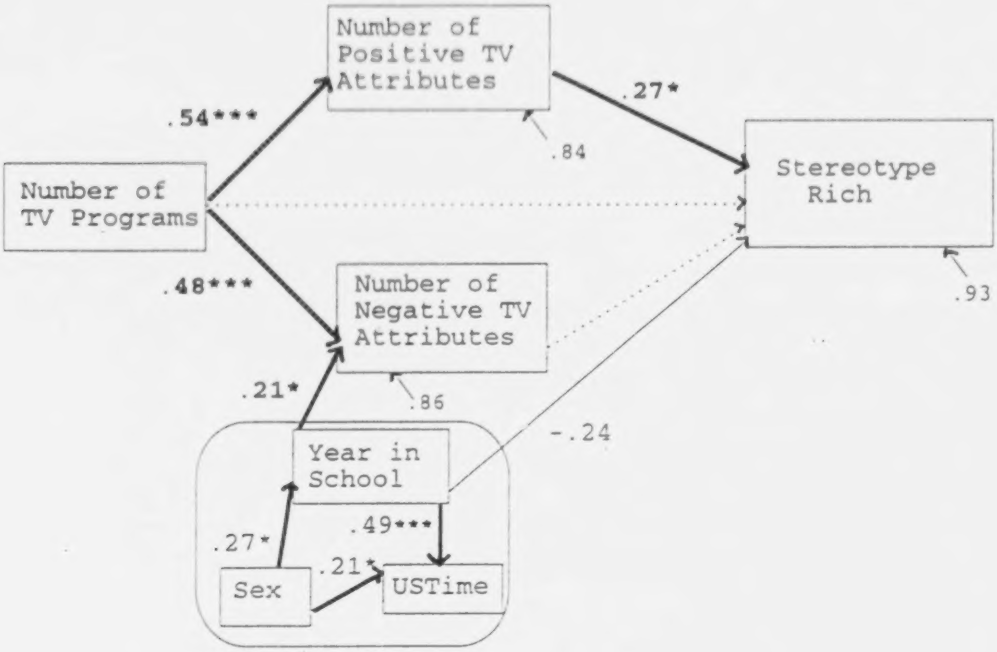

Figure 4. Cultivation and Social Cognitive Routes to Stereotyping: Japanese sample; Factor 3.

Notes. $X^2(9, 79) = 9.07$; $p = .43$; Normed Fit Index = .912; NonNormed Fit Index = 1.00. $^*p < .05$. $^{**}p < .01$. $^{***}p < .001$. Demographic variables were entered separately in equation.

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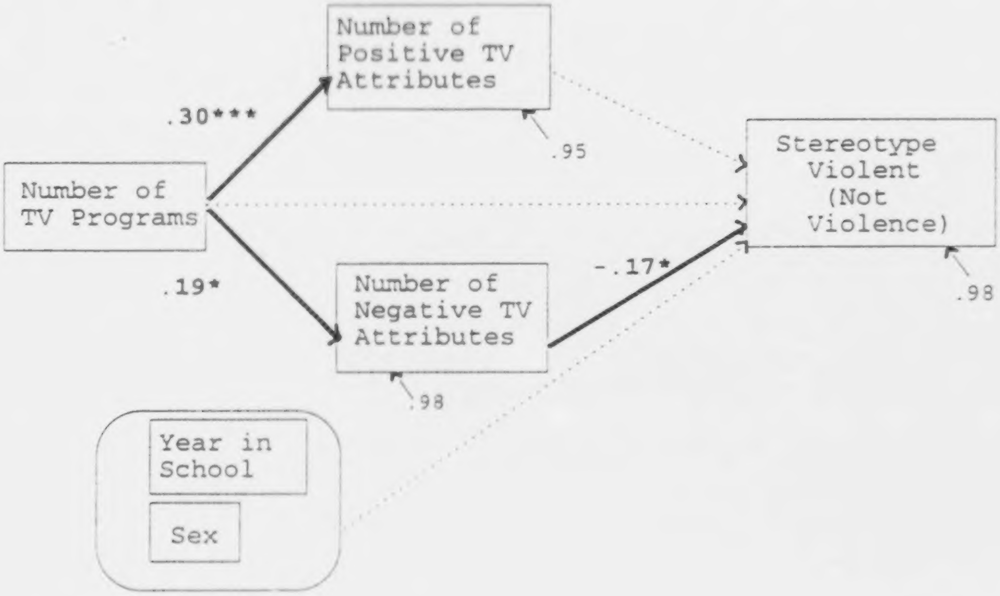
Number of Positive TV Attributes
.30***
.95
Number of TV Programs
Stereotype Violent (Not Violence)
.19*
Number of Negative TV Attributes
-.17*
.98
.98
Year in School
Sex

Figure 5. Cultivation and Social Cognitive Routes to Stereotyping: White sample; Factor 1.

Notes. $X^2(8, 159) = 10.92$; $p = .21$; Normed Fit Index = .71; NonNormed Fit Index = .76 $*p < .05$. $**p < .01$. $***p < .001$. Demographic variables were entered separately in equation.

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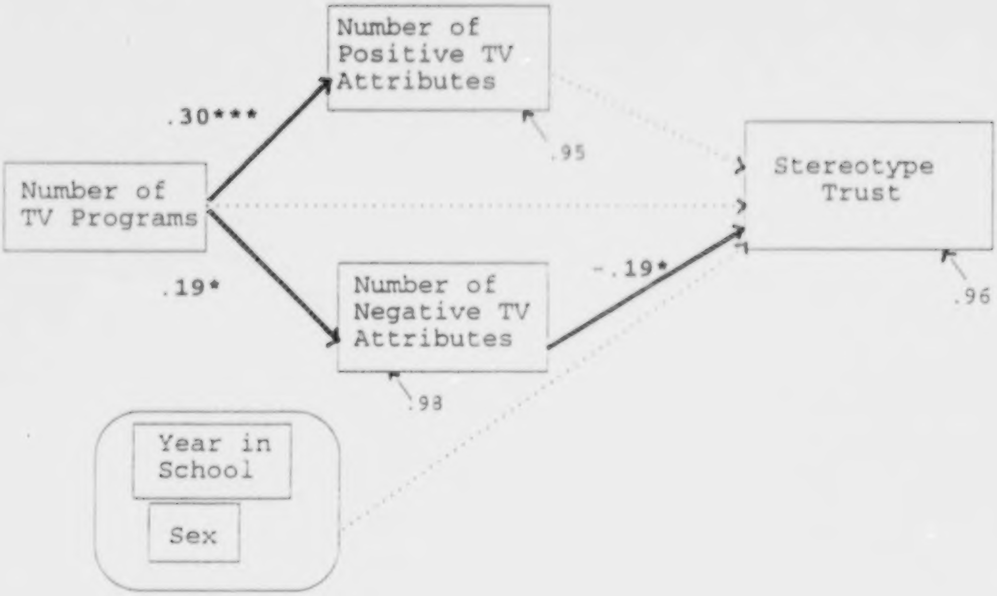

Figure 6. Cultivation and Social Cognitive Routes to Stereotyping: White sample; Factor 2.

Notes. $X^2(8, 159) = 10.92$; *p* = .21; Normed Fit Index = .76; NonNormed Fit Index = .82 **p* < .05. ***p* < .01. ****p* < .001. Demographic variables were entered separately in equation.

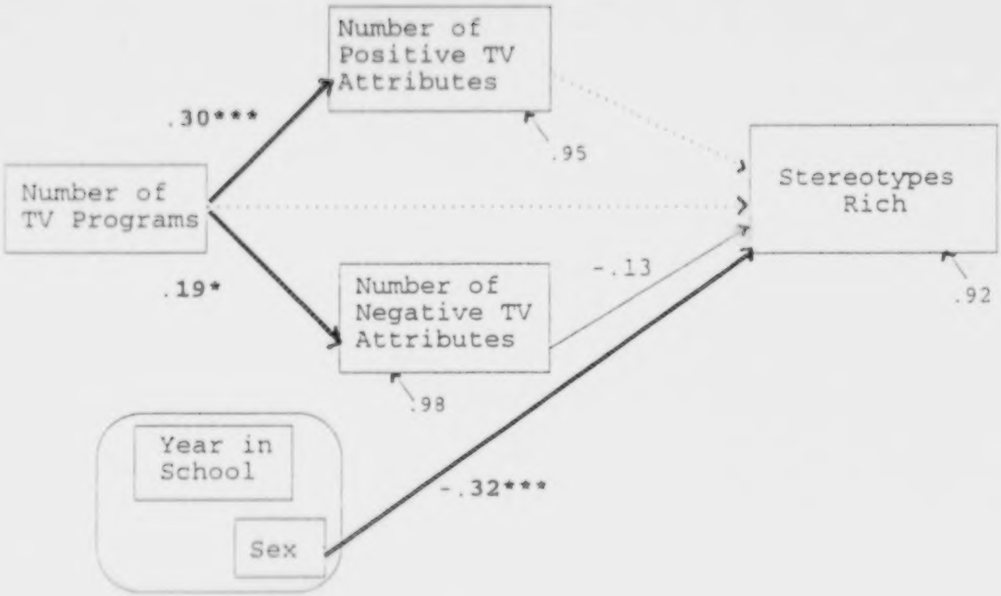

Figure 7. Cultivation and Social Cognitive Routes to Stereotyping: White sample; Factor 3.

Notes. $X^2(8, 159) = 10.92$; $p = .21$; Normed Fit Index = .81; NonNormed Fit Index = .87. *$p < .05$. **$p < .01$. ***$p < .001$. Demographic variables were entered separately in equation.

Fearing the "Mean World": Exploring the Victim-Offender Relationship's Influence on Fear of Violent Crime

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Abstract

Current cultivation research is expanded to include a distinction among different types of violent crime and their potential cultivation impact. It is theorized that there are cognitive reasons for a difference in how "mean" people feel the world is when exposed to crime-filled media content. It is hypothesized that the crime type people are most significantly impacted by is stranger-perpetrated violent crime which is more likely to arouse fear than acquaintance-perpetrated crime.

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Fearing the "Mean World": Exploring the victim-offender relationship's influence on fear of violent crime

Introduction

In this decade, violence has become a concern for so many people that it was ranked by a majority of respondents in a 1994 Gallup Poll as the number one problem facing our country (Gallup, 1995). Crime is a real problem, especially to its victims. But is crime as serious as our fear of it would indicate? Research on this point has consistently shown that people are unable to estimate the extent of crime in society and that the variations in such estimates are independent of the actual crime rate itself (Gilliam, Iyengar, Simon & Wright, 1996).

Closer examination of the Gallup data shows that until 1994, crime was almost never listed as the number one problem in the country by more than 10% of the population. In 1994 the numbers jumped to 37%, then to a record 52% only to settle back in at 27% in 1995. (For comparison, the only other issue to hold more than 50% of the public's concern in Gallup polling was the drug issue in 1989.) During this same time period, crime--violent and nonviolent--has actually fallen across the country. For example, the National Crime Victimization Survey (NCVS) of the Bureau of Justice Statistics reported in 1992 that violent crime had fallen 9% from a peak in 1981 (US Department of Justice, 1994, p. 1). The Uniform Crime Report of the FBI confirms this finding, reporting that the 1994 overall crime rate was 8% lower than the 1990 crime rate (US Department of Justice, 1995). This is curiously the same year that the Gallup Poll reported the highest rates of concern for crime.

If actual crime rates do not influence perception of crime, then what does? Media researchers have long proposed that the mass media influence our perception of crime. But close inspection of this influence has yielded varied results and produced a multitude of conditions under which certain effects may or may not occur. One area that has not been investigated is the difference between perceptions of crime committed by strangers and crime committed by acquaintances of victims. The NCVS reports that in 53% of violent crimes the offender is a stranger to the victim (US Department of Justice, 1996, p. 7). That means almost half of violent crimes involve offenders who know or are related to their victims. This fact implies a qualitative difference in the nature of such crime. When people are asked to estimate the frequency of violent crime, do they account for this qualitative difference or do they merely apply a mental image of a certain type of crime, whether stranger-perpetrated or acquaintance-perpetrated? Is one type of crime more likely to be misperceived and feared than the other? Does exposure to news coverage or violent crime affect how people perceive the two different types of crime? This paper undertakes just such an investigation, examining the media's influence on fear of stranger-perpetrated crime.

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Theory

Media effects researchers have been concerned with the question of violent crime and violent crime reporting since the earliest days of the discipline. In the entertainment media, the concern has been with the effects of violent portrayals on the viewer or reader (Lowery & DeFleur, 1988). In the news media, there has been concern over the exaggerated coverage violent crime receives (Johnstone, Hawkins, & Michener, 1995). The famed line, "If it bleeds, it leads," is a well-known maxim for what determines newsworthiness of crime. If crime reporting overplays the dangers of violent crime, these researchers reason that the public may have an exaggerated fear of crime.

Cultivation Theory

The best known field of research that has studied the effects of violent television programming on fear of crime has been cultivation theory, which first posited in the '70s that exposure to television could cultivate in viewers an exaggerated view of their own chances of being victims of crime (Gerbner & Gross, 1976). Initial findings were very positive, only to be challenged later on methodological grounds (Hirsch, 1980; 1981). In general, the original success of cultivation theory was diminished as more research established the myriad of controls that had to be examined before a cultivation effect could reliably be measured (Potter, 1994). The results of such efforts, though still championed by advocates of the theory, have proven to be very small (Gerbner, Gross, Morgan & Signorielli, 1994).

Cognitive vs. affective. An early attempt to improve upon cultivation research is the distinction between different levels at which cultivation can theoretically take place (Hawkins, Pingree, & Adler, 1987). At the cognitive level, it is theorized that exposure to mediated violence could lead viewers to consciously overestimate the rate of violent crime or the prevalence of law enforcement officials. This is differentiated from the affective level, where it is claimed that exposure to mediated violence could lead viewers to fear crime and overestimate their own chances of being a victim of crime. Research into this differentiation has shown that television exposure does often cultivate exaggerated perceptions at the cognitive level, but not at the affective level (Hawkins & Pingree, 1990).

Extended cultivation. Other researchers have extended cultivation research by narrowing the essentially mass audience perspective of the original theory (Hawkins & Pingree, 1981). This body of extended cultivation research has sought to link specific program viewing to a cultivation-like effect, although Gerbner and his colleagues do not recognize the extended cultivation research as a true test of cultivation (Gerbner, 1990). As part of this extended cultivation research, news programming has often been isolated as a potential contributor to a mean-world syndrome effect (McLeod, 1995). This is because news content is "real" where fictional portrayals are understood by the audience to be "unreal."

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News Content

The question of whether news content may influence perception of violent crime inevitably leads to the question of where news content comes from. If news coverage is to be blamed for distorting the public's perception of violent crime, there must be a theoretical explanation for why such coverage is emphasized. Shoemaker (1987) summarized the relevant theories of news content. Those most relevant to crime reporting posit that news content is a function of newsgathering routines, is a product of the socialization patterns and norms of the reporters, is the result of the decisions made by editorial "gatekeepers," or is shaped by the societal forces that exert pressure on the news organizations to produce certain types of content. Within these theories, researchers have claimed that crime reporting overplays the most deviant violent acts because they provide good visuals for television or print coverage; because they involve weak victims such as women, children, and the elderly; or because they involve celebrities (Johnstone, Hawkins, & Michener, 1995).

The value of news content theories depends on the extent to which news coverage actually influences people. One apparent anomaly which weakens that assumption is the finding of a recent study that violent crime is still considered a serious concern for people even though recent press articles and stories had focused on the decreasing crime rate (McLeod, 1995). How is it possible that violent news content could create a negative effect on the public, but positive news about crime has no effect? Is there a theoretical justification for how individuals process news information that accounts for this apparent contradiction?

Cognitive Processing

In order to explain how people are affected by crime news, a cognitive processing model would have to explain why individuals would overperceive news about violent crime yet disregard positive news about a declining crime rate. One model proposed by Wyer and Srull (1980) for use in social cognition includes functional processors in the cognitive system that assign incoming information to their ultimate destination within the system. As applied to communication studies by Reeves, Chaffee, and Tims (1982), these processors include a preencoder, an executive unit, an encoder/organizer, an integrator, and a response selector. As new information enters the system, it is filtered by the preencoder into the most relevant bits. The executive unit routes the flow of different information bits into different internal processing units where the encoder/organizer compares the bits to knowledge already processed and accumulated, ultimately pairing the information with those concepts or schemata that are judged to be relevant to the new information. The integrator identifies the potential impact of the information on the existing framework and encourages the response selector to choose an appropriate output mode.

Upon entering this system, news information might be given a higher priority by the preencoder than entertainment information because it is perceived as "real." This

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higher priority would enhance the cognitive processes all the way down the line, encouraging more specific processing at all stages. At the encoder/organizer stage, a judgment must be made concerning the relevance of the new information. The integrator would translate the emphasis placed on the news information into an indicator of seriousness, encouraging the response selector to increase general fear of violent crime in the system so that the individual can avoid danger. Specific responses may include locking car doors while driving down city streets, purchasing an alarm system or carrying mace. Interestingly, the result of such activities would be an increase in salience of crime for the system, further signaling the preencoder to be on the watch for information about violent crime.

It should be cautioned that an elaborately constructed model like this is elegant and well-reasoned, but assumes that all thought processes are nearly rational or at least ordered. Nor is it based on an understanding of the biological processes involved in information processing in the brain. Recent research that has suggested an important role for the biological design of the brain itself was conducted by Shoemaker (1996). Based on a theoretical discussion of cultural and biological evolution Shoemaker suggested there may be a biological predisposition for news-seeking in the brain itself. Our current taste for news about our environment is related to the early hominid's desire to know the location of potential prey as well as potential predators. Strictly applying evolutionary concepts, this means that those individuals who constantly monitored their environments for change survived as a result and passed that behavior to their children. Such conditioning, implemented over time has instilled in us today a cultural predisposition for the environment-monitoring function which the news media currently fulfill.

Such a profound biological operant should be measurable not only through observing behavior, but should be logically consistent with the structure of the human brain as we understand it. Decades of painstaking neuroscientific research combined with recent technological advances in Positron Emission Tomography (PET) have provided us a very detailed understanding of how many parts of the brain work. At the cellular level, research into the neuron--the essential unit of brain and nervous system functioning--has yielded much of value (Kandell, Schwarz & Jessell, 1991). For example, we now understand that brain cells communicate to each other through intricate connections, with each cell synapsing on (connecting with) up to 10,000 other cells. These connections are not formed randomly, but follow specific growth patterns which are first genetically determined but that are then either encouraged by the mental processes of the individual or discouraged. In other words, there may be a genetic basis for certain information processing patterns. However, once formed, neuronal connections will atrophy and often die if the mental processes of the individual don't "exercise" that pattern of connections. This indicates that the presence of certain patterns of neuron firings (whether those involved in muscle coordination or in conscious thought) will encourage the growth of that pattern. The processing of information about violent crime could be such a pattern.

This could partially explain why positive information about crime is ignored, since the pattern has grown around retaining and processing negative information.

At the brain level, there are further indications that information about violent crime would receive special treatment by the brain. In the brain, researchers have identified three different evolutionary structures (Kandell, Schwarz, & Jessell, 1991). The first section, the brain stem, is common to almost all creatures. It is theorized that this section of the brain evolved first. The second section is called the limbic, or reptilian, brain. Only vertebrate species have developed this section of the brain. The most recent evolutionary contribution to the brain is the cortex. The human cortex is highly developed and produces the sensations we call consciousness. In it are contained millions of neurons which dedicate themselves to processing, integrating, and evaluating sensory input. However, much of what we actually do is determined not at the cortical level, but below it at the limbic and brain stem level. For example, the brain stem is responsible for autonomic processes which we don't think about often. This includes heart beat, respiration, and glandular secretions. Up one step at the limbic level are contained most of the emotional processes that we experience. At the center of this limbic brain are the thalamus and the hypothalamus, two substructures which filter nearly all inputs to the cortex. These two substructures are responsible for managing--among other things--two of our most basic emotions: fear and sexual arousal.

As sensory input proceeds through the limbic brain, it is evaluated (much like the preencoding function of the cognitive model described above) by the hypothalamus for relevance to our emotional state. Inputs that signal potential danger result in the release of hormones and other secretions that alter the physiological state of the body. The information is passed further up the brain into the cortex where the sensations of fear or worry are felt in the cortex. In situations of extreme danger, this fear is used by the body to keep the mind alert and aware. In situations of remote danger, this fear could be used by the mind to tag selected pieces of information and store them for future use. For example, knowledge about a particular park where a violent assault took place may be stored by the brain to be recalled whenever the person walks through that park. This can be regarded as a defense mechanism designed to ensure that the individual will be alert to any signs of danger in the future.

Theoretical Synthesis

What are the implications of this brain research on this paper? Revisiting the basis for cultivation theory, it shows that there may be a biological basis (whether perpetuated culturally or genetically) for the media's ability to cultivate fearful reactions in people. However, it also exposes some subtle weaknesses in the cultivation concept. First, only those messages which contain legitimate potential threats to the safety of the individual are likely to produce a fear reaction with lasting effects. This could exclude fictional portrayals. While the limbic brain can't distinguish between fantasy and reality, the cortex can, thus shutting down the lower system's fear reaction and eventually stopping it

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from occurring under similar circumstances in the future. This is similar to the concept of desensitization used in media violence and pornography studies (Eysenck & Nias, 1978).

The implications are not so clear for the difference between affective and cognitive cultivation effects. Based on the model described above, one would assume that an affective response would be most readily produced, given that the limbic brain influences the fear emotion directly. However, one element of the system is that it loops: that is, outputs from one iteration become inputs in the next. Thus, affective outputs become inputs to the cognitive system, encouraging the individual to process the reaction consciously. It is possible that this could result in greater cognitive perception of crime as well. If cognitive processing allows the individual to rationally combat the fear, the affective reaction may diminish over time, leaving the cognitively elaborated construct in tact. This paper proposes that both reactions will be evident in heavy news media consumers since they are constantly involved in this affective-cognitive cycle at any one given moment. Any similar effect for light news media consumers will be small.

This raises a further question based on the discussion of offender-victim relationships presented in the introduction above. Is it possible that certain types of crime are more likely to trigger an intense affective reaction? For example, if a violent murder is likely to produce a fear reaction, is it as likely to do so if the violent murder is committed by the husband of the victim in their own home? Remember the purpose of the fear reaction is to signal potential danger to the individual. For whom does such a spousal murder signal potential danger? Only people whose life circumstances are similar in some way to the victim's. If this reasoning is correct, only certain people will be likely to experience the affective or cognitive effect of exposure to violent news media where the relationship between the victim and the offender is close.

On the other hand, in the case of violent crimes committed by strangers--serial killings, the Oklahoma bombing, and some rapes--the limbic system is likely to respond to such information simply because the victims are generally seen as unsuspecting. Much like the saying, "when you least expect it . . . expect it," this reasoning is irrational but self-perpetuating because try as they might, individuals cannot cognitively eliminate the risk of such a random-seeming occurrence. Thus, this paper proposes that the fear reaction proposed above with respect to news exposure will actually be in reaction to stranger-perpetrated crime, not acquaintance-perpetrated crime.

Hypotheses

Consistent with the simple cultivation perspective discussed above, hypotheses one and two will test the viability of the cultivation concept with respect to the stranger-acquaintance split. The first hypothesis assesses the effect of mean television exposure on the cognitive perception (awareness) of stranger-perpetrated violent crime as follows:

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H1: The more TV people watch, the more they will be aware of stranger-perpetrated violent crime.

The second hypothesis assesses the effect of mean television exposure on the affective perception (fear) of stranger-perpetrated violent crime as follows:

H2: The more TV people watch, the more they will fear stranger-perpetrated crime.

Hypotheses three and four test the television news portion of extended cultivation theory explained above for both the cognitive and affective perceptions of stranger-perpetrated violent crime. They are as follows:

H3: The more television news people are exposed to, the more they will be aware of stranger-perpetrated crime.

H4: The more television news people are exposed to, the more they will fear stranger-perpetrated crime.

The logic behind the extended cultivaiton hypotheses does not only apply to television news however. If it can be argued that the "real" nature of television news can create awareness or fear of stranger-perpetrated crime, the same logic should also apply to other news media. That leads to the creation of the next two hypotheses:

H5: The more news media people are exposed to, the more they will be aware of stranger-perpetrated crime.

H6: The more news media people are exposed to, the more they will fear stranger-perpetrated crime.

Control variables that could influence people's perception of violent crime–whether the perpetrator is a stranger or an acquaintance–will be applied to all these variables, including: income, education, age, gender, personal experience with violent crime, and salience of the crime issue.

Method

In late September and early October of 1996 a 14-day telephone survey of adults living in a major metropolitan area in the northeast United States was conducted by forty-four graduate students from a large university in the region. The survey instrument was designed by eight graduate students with the aid of their supervisor. The resulting omnibus survey contained 120 questions and was designed to collect the metropolitan-area adults' opinions on a wide variety of topics. Based on a pretest of 25

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completed surveys drawn from a subset of the random sample used to generate the final sampling frame, the instrument was refined before entering the field in late September.

In order to generate a random sample of the metropolitan area's adults, a CD-ROM telephone directory (SelectPhone, 1997) was used to develop the sampling frame for the study. All telephone numbers within the metropolitan calling area were selected from the CD-ROM database. After eliminating business and duplicate telephone numbers, a list of 197,000 telephone households was identified as the study's sampling frame.

These telephone numbers were then randomly ordered based on a computer generated list of random numbers and divided into groups of fifty telephone numbers to create 23 replicates of 50 numbers each for a total of 1,150 telephone numbers which were used in the study. Further randomization within each household was achieved through the Kish method, which was used to randomly identify male and female members of the household to be included in the study.

The present study's author was one of the eight researchers who helped design the instrument. As part of this study, the survey asked respondents to answer questions about fear of crime and victimization, knowledge and awareness of different crime types, and experience with violent crime.

Exposure to television was operationally defined as the product of the responses to the following questions: 1) In an average week, how many days do you watch television? 2) On an average day, how much time do you watch television? Similarly, exposure to television news was defined as the product of the responses to two questions: 1) In an average week, how many days do you watch television? 2) On an average day, how much time do you spend watching television news?

Consistent with the theoretical discussion surrounding hypotheses five and six, exposure to news media was operationally defined as the product of the responses to the following questions: 1) In an average week, how many days do you watch television? 2) On an average day, how much time do you spend watching television news? plus the product of the responses to the following: 1) In an average week, how many days do you listen to the radio? 2) On an average day, how much time do you spend listening to radio news? plus the product of the responses to the following questions: 1) In an average week, how many days do you read a daily newspaper? 2) On an average day, how much time do you spend reading a newspaper?

Operationalizing awareness of stranger-perpetrated crime was done on two levels. On the first level, awareness of stranger-perpetrated crime was defined as the response to the Likert-type question: In most violent crimes, the victims don't know their attackers, with potential responses ranging from stronly agree (coded as 5) to strongly disagree (coded as 1). Using this definition, a score of 5 indicates strong awareness (perceived, not actual) of stranger-perpetrated crime.

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The same concept was simultaneously measured through a more complex mechanism where respondents were asked to estimate how many murder victims out of 100 had known their killers[1]. The same question was asked for rape victims and assault victims. The responses to the three questions were summed to produce an additive index with values ranging from 0 to 300 (alpha=.77). Higher scores indicate less awareness of stranger-perpetrated crime.

Fear of stranger-perpetrated crime was operationalized by combining scores for two Likert-type questions into a scale. The two questions are as follows: 1) When I leave my home, I worry that I could be mugged or attacked by strangers, and 2) I'm afraid to walk alone at night. Both questions range from strongly agree (coded as 5) to strongly disagree (coded as 1). The resulting scale will have possible ranges from 2 to 10 where ten will indicate greatest fear of stranger-perpetrated crime (alpha=.71).

For control variables, salience of crime is operationalized through the Likert-type question: Crime is the number one problem facing our country, with resopnses ranging from strongly agree (coded as 5) to strongly disagree (coded as 1). Personal experience with violent crime is operationalized as the response to the question, "Have you ever been the victim of a violent crime? " For those who responded affirmatively, the follow-up question, "Did you know the person who attacked you?" was asked.

Based on the above operationalizations, all six hypotheses will be tested using pearson's correlation coefficient. To allow for inclusion of multiple control variables, the same relationships will be further tested by hierarchical regression analysis.

Results

Table 1 contains the means and standard deviations of the TV and news media exposure variables. Table 2 shows the means and standard deviations for indicators of fear and awareness of stranger-perpetrated crime as well as age. Note that the mean exposure to television during an average week is roughly 15 hours, of which, more than a third, or 5½ hours, were spent with television news. Mean exposure to all news media is approximately 12 hours a week. Table 3 shows percentages for categorical variables. Of the respondents, 21% report that they have been victims of violent crime themselves. Of them, 62% knew the perpetrator of that crime.

Table 4 reports the results of the various correlations between media exposure variables. As can be seen, exposure to radio news does not correlate significantly with the other media, whereas all other relationships are significant. Table 5 shows the bivariate tests of all six hypotheses. Of the six, hypotheses 1-4 are supported by the Pearson correlation coefficients. Exposure to television in general leads to both fear and awareness of stranger-perpetrated crime, and exposure to television news results in

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[1] Question wording was: If 100 murders were committed in the United States this month, how many victims do you think knew their killers? The same question was asked again twice, substituting rapes and violent attacks for murders, and rapist and attacker for killers.

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increased fear and awareness. However, the correlation between exposure to TV and exposure to TV news is so large that it is questionable whether hypotheses three and four receive support because of the nature of television news coverage or because exposure to television news is itself dependent on exposure to television programming in general. If TV news content really does produce different effects than TV in general, hypotheses five and six should receive some support. Based on the correlation coefficients, these hypotheses did not. From this it cannot be stated that news media have a significant impact on fear or awareness of stranger-perpetrated crime.

In order to explore this situation further, hierarchical regressions were conducted. Tables 6 and 7 show the hierarchical regressions for the awareness and fear indexes. In each case, the impact of demographic variables, the respondent's past experience with violent crime, and the respondent's attitude towards the importance of crime as a national issue are controlled for in a series of independently tested regression blocks. The media exposure variables included in the analysis are TV exposure and all news media exposure. TV news exposure was omitted because it correlated so highly with TV exposure that it is unlikely to be measuring anything unique. Thus, these regressions represent attempts to retest hypotheses one, two, five, and six.

Based on the relationships shown in Table 6, it is apparent that only one variable has any impact on awareness of stranger-perpetrated crime: whether or not the respondent was the victim of a violent crime. Curiously, the beta coefficient is negative, indicating that those who were victims of violent crime tended to estimate that more violent crime was committed by acquaintances rather than by strangers. This could be reflective of the fact that 62% of these people were acquainted with their attackers. Thus, personal experience with violent crime is the only significant determinant of awareness of stranger-perpetrated crime.

Examining Table 7, it is obvious that something very different is happening here. Three variables are significantly related to fear of stranger-perpetrated crime: respondent's sex, respondent's attitude towards crime as a national issue, and TV exposure. From these figures, it appears that women are more likely to fear stranger-perpetrated crime than men, people who believe crime is the "number one" problem in our country are also more prone to fear, and people who watch more TV are more likely to fear stranger-perpetrated crime as measured here. Note, however, that the R-square changes are very small for all the variable blocks other than the demographic one, which has an R-square change of .13 ($p<.001$). For the TV exposure variable, while its beta coefficient was .14 ($p<.05$), the R-square change attributable to the media block was only .016 ($p<.05$). From Tables 6 and 7, we again find no support for hypotheses five and six which stated that exposure to news media in general would cause increased fear or awareness of stranger-perpetrated crime.

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Discussion

The purpose of this study was to expand the current field of cultivation research to include a distinction between different types of violent crime and their potential cultivation impact. It is theorized in the paper that there are cognitive reasons for a difference in how "mean" people feel the world is when exposed to crime-filled media content. It is hypothesized that the crime type people are most significantly impacted by is stranger-perpetrated violent crime, rather than acquaintance-perpetrated crime, holding that portrayals of the former are more likely to arouse fear reactions in the individual than the latter.

In order to maintain consistency with traditional cultivation research, fear of stranger-perpetrated crime and awareness of stranger-perpetrated crime are tested separately. In the first two hypotheses, mean exposure to television is tested against both fear and awareness of stanger-perpetrated crime. Pearson's correlations performed on the relationships were significant at very low levels (.19 and .13, respectively).

The next hypotheses test the extended cultivation concept discussed previously. That is, that the content of television news is more likely than the overall content of television to produce a cultivation effect. Pearson's correlations produced significant relationships between exposure to television news and the fear and awareness indexes (.23 and .14, respectively). This indicates support for the extended cultivation hypotheses, although this result is problematic given that television news exposure and television exposure themselves are highly correlated at the .67 level (see Table 5). An attempt was made to determine whether exposure to nonnews television content was independent of exposure to news television. Here again, the correlation was high (see Table 4). The one important detail to note is that the correlation between television exposure and fear is lower than the correlation between television news exposure and fear (.19 and .23). This difference provides some indication that exposure to television news may be measuring something qualitatively different from exposure to television, but generalizing on the basis of these results is not recommended.

One further attempt to get at the difference between television and news content was in hypotheses five and six. Here, exposure to all news media--including radio and newspaper--was tested against the fear and awareness indexes. The resulting correlations were not significant. This could indicate that, counter to the theoretical discussion presented above, the fact that news information could be interpreted by users as more "real" than fictional portrayals does not significantly impact the fear or awareness generated by it.

To resolve the difficulties presented by these results, a look at the hierarchical regressions might help. As was discussed above, Table 6 shows that when controlled for various variables that impact awareness of stranger-perpetrated crime, the significance of the TV exposure variable drops out. The only remaining variable that is significantly

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related to awareness is the person's past experience with violent crime, defined as whether or not the individual was ever the victim of a violent crime.

In Table 7, where fear of stranger-perpetrated crime is measured with multiple controls, three variables come out as significant: sex, reported belief that crime is the "number one" problem in our country, and exposure to television. This is an interesting result in light of the fact that most cultivation research findings drop out when multiple controls are applied. It is also interesting given that the cognitive aspects of cultivation (as in awareness) are traditionally easier to measure than the affective aspects (as in fear). Here, the reverse is true. This may be due to the fact that the mean world index used in cultivation research was altered for the purposes of this study to include specific references to strangers, thus trying to highlight the impact of crime-type on the cultivation effect.

The author believes this finding to be significant because it supports the idea that the mean world Gerbner and his associates have sought to describe is really a world of stranger-perpetrated violent crimes, not a world of crime in general. If these results hold true, they are a powerful argument for reconsidering the theoretical basis of cultivation theory.

Considerations for Future Research

The principle weakness of this study is the lack of a convincing method for estimating fear of acquaintance-perpetrated crime. Such a measure was not included in this study because of the inherent difficulty in asking people in a survey context if they are afraid of people they know hurting them. To really study the impact of perpetrator-type on the cultivation relationship, an effective measure of that concept should be developed so that fear of the different types of perpetrators can be compared and contrasted.

Future research should seek to confirm these results in other geographical areas as well. When the sample was compared to the 1990 census data for adults from the same metropolitan area, it was found that the survey slightly overrepresented females, upper income households, and highly educated individuals. Though the variations were slight and are very common for telephone surveys, it is important to consider them when generalizing on the basis of these results.

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Table 1. Means and standard deviations for TV and news media exposure variables.

Variables	Mean	Std. Dev.	N
In an average week, how many days do you watch television?[a]	5.75	1.99	397
On an average day, how much time do you watch television?[b]	143.83	100.43	396
On an average day, how much time do you spend watching television news?[b]	51.89	41.51	396
Television exposure variable[c]	909.91	732.2	396
Television news exposure variable[d]	326.82	291.32	396
In an average week, how many days do you listen to the radio?[a]	5.36	2.36	393
On an average day, how much time do you spend listening to radio news?[b]	32.12	46.75	360
Radio news exposure variable[e]	202.34	310.4	388
In an average week, how many days do you read a daily newspaper?[a]	4.70	2.66	397
On an average day, how much time do you spend reading a newspaper?[b]	38.88	32.46	393
Newspaper exposure variable[f]	200.07	194.9	393
News media exposure variable[g]	726.96	517.6	383

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[a] Days out of seven

[b] Coded in minutes

[c] (minutes of television watched per day x number of days watched per week)

[d] (minutes of television news watched per day x number of days watched per week)

[e] (minutes of radio news listened to per day x number of days listened to per week)

[f] (minutes of newspaper reading per day x number of days read per week)

[g] Television news exposure variable + radio news exposure variable + newspaper exposure

Table 2. Means and standard deviations for fear and awareness of stranger-perpetrated crime and age.

Variables	Mean	Std. Dev.	N
In most violent crimes, the victims don't know their attackers[a]	2.96	1.15	389
If 100 murders were committed in the United States this month, how many victims do you think knew their killers?	54.25	25.18	367
If 100 rapes were committed in the United States this month, how many victims do you think knew their rapist?	59.03	24.19	374
If 100 violent attacks were committed in the United States this month, how many victims do you think would know their attacker?	51.54	24.43	376
Awareness of stranger-perpetrated crime scale[b]	134.03	60.40	355
I worry I could be mugged or attacked by strangers[a]	2.44	1.11	395
I'm afraid to walk alone at night[a]	2.85	1.28	397
Fear of stranger-perpetrated crime[c]	5.29	2.11	394
Crime is the number one problem facing our country[a]	3.65	1.13	412
Age (in years)	46.10	16.12	392

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[a] strongly agree=5, agree=4, neutral=3, disagree=2, strongly disagree=1

[b] Combined estimates, each out of 100, of how many victims of murder, rape, and assault knew their victims, ranging from 0 to 300, reversed so that 300 indicates more awareness and 0 indicates less awareness, alpha=.77

[c] Combination of "I worry I could be mugged or attacked by strangers" and "I'm afraid to walk alone at night," ranging from 2 to 10, where 10 indicates more fear and 2 indicates less fear, alpha=.71.

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Table 3. Percentages for experience with violent crime variables, gender, education, and income.

Variables	%
Have you ever been the victim of a violent crime?	
Yes	20.8
No	79.2
	100.0% (N=390)
(If yes) Did you know the person who attacked you?	
Yes	62.2
No	37.8
	100.0% (N=82)
Sex	
Male	41.3
Female	58.7
	100.0% (N=397)
Education	
Less than high school	10.9
High school or equivalency	22.5
Some college	21.3
Associate's degree	12.4
Bachelor's degree	21.5
Graduate or professional degree	11.4
	100.0% (N=395)
Income	
Less than $20,000	16.7
$20,000 - $29,999	14.4
$30,000 - $39,999	14.1
$40,000 - $49,999	15.8
$50,000 - $59,999	11.1
$60,000 - $69,999	7.3
$70,000 - $79,999	9.4
$80,000 or more	11.1
	100.0% (N=341)

Table 4. Pearson correlation coefficients for all media exposure variables (exposure to TV, TV news, nonnews TV, radio, newspaper, and all news media).

Variables	2	3	4	5	6
1. Exposure to TV*	.63^{c} (395)	1.00^{c} (395)	-.06 (387)	.20^{c} (392)	.40^{c} (382)
2. Exposure to TV news**	-	.62^{c} (394)	.02 (387)	.28^{c} (392)	.67^{c} (383)
3. Exposure to nonnews TV***		-	-.06 (386)	.20^{c} (391)	.39^{c} (381)
4. Exposure to radio news****			-	.13^{c} (384)	.66^{c} (383)
5. Exposure to newspaper*****				-	.61^{c} (383)
6. Exposure to all news media******					-

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^{a} $p < .05$
^{b} $p < .01$
^{c} $p < .001$

* (minutes of television watched per day x number of days watched per week)

** (minutes of television news watched per day x number of days watched per week)

*** ([minutes of television watched per day - minutes of television news watched per day] x number of days watched per week)

**** (minutes of radio news listened to per day x number of days listened to per week)

***** (minutes of newspaper reading per day x number of days read per week)

****** Television news exposure variable + radio news exposure variable + newspaper exposure

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Table 5. Pearson correlation coefficients for independent and dependent variables (fear and awareness of stranger-perpetrated crime by exposure to media variables).

Variables	2	3	4	5	6
1. Exposure to TV*	.63^{c} (395)	-.40^{c} (382)	.19^{c} (392)	.13^{a} (354)	.08 (387)
2. Exposure to TV news**	-	.67^{c} (383)	.23^{c} (392)	.14^{a} (355)	.07 (387)
3. Exposure to all news media***		-	.10 (379)	.04 (346)	.04 (375)
4. Fear of crime index†			-	.16^{b} (353)	.15^{b} (385)
5. Awareness of stranger-perpetrated crime index††				-	.54^{c} (351)
6. In most violent crime, victim's don't know their attackers†††					-

---

^{a} $p < .05$
^{b} $p < .01$
^{c} $p < .001$

* (minutes of television watched per day x number of days watched per week)

** (minutes of television news watched per day x number of days watched per week)

*** Television news exposure variable + radio news exposure variable + newspaper exposure

† Combination of "I worry I could be mugged or attacked by strangers" and "I'm afraid to walk alone at night," ranging from 2 to 10, where 10 indicates more fear and 2 indicates less fear, alpha=.71

†† Combined estimates, each out of 100, of how many victims of murder, rape, and assault knew their victims, ranging from 0 to 300, reversed so that 300 indicates moreawareness and 0 indicates less awareness, alpha=.77

††† strongly agree=5, agree=4, neutral=3, disagree=2, strongly disagree=1

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Table 6. Hierarchical regression analysis of demographic variables, experience with violent crime, salience of crime, and media exposure on awareness of stranger-perpetrated crime index*.

Independent variable blocks	Std. beta	R-square change	Total R-square	Adjusted R-square
1. Demographic variables				
Age	.084			
Gender (female = 1)	-.006			
Income	-.008	.012	.012	.002
2. Have you ever been the victim of violent crime (yes = 1)	-.155[b]	.025[b]	.037	.024
3. Crime is the number one problem in our country**	.084	.009	.046	.030
4. Media exposure variables				
TV exposure***	.125			
All news media exposure****	-.042	.012	.058	.035

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a p<.05

b p<.01

c p<.001

* Combined estimates, each out of 100, of how many victims of murder, rape, and assault knew their victims, ranging from 0 to 300, reversed so that 300 indicates more awareness and 0 indicates less awareness, alpha=.77

** strongly agree=5, agree=4, neutral=3, disagree=2, strongly disagree=1

*** (minutes of television watched per day x number of days watched per week)

**** Television news exposure variable + radio news exposure variable + newspaper exposure

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Table 7. Hierarchical regression analysis of demographic variables, experience with violent crime, salience of crime, and media exposure on fear of stranger-perpetrated crime index*.

Independent variable blocks	Std. beta	R-square change	Total R-square	Adjusted R-square
1. Demographic variables				
Age	.014			
Gender (female = 1)	.301[c]			
Income	-.029	.130[c]	.130	.121
2. Have you ever been the victim of violent crime (yes = 1)	.097	.008	.138	.127
3. Crime is the number one problem in our country**	.206[c]	.045[c]	.183	.170
4. Media exposure variables				
TV exposure***	.142[a]			
All news media exposure****	-.016	.016[a]	.199	.181

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a p<.05

b p<.01

c p<.001

* Combination of "I worry I could be mugged or attacked by strangers" and "I'm afraid to walk alone at night," ranging from 2 to 10, where 10 indicates more fear and 2 indicates less fear, alpha=.71

** strongly agree=5, agree=4, neutral=3, disagree=2, strongly disagree=1

*** (minutes of television watched per day x number of days watched per week)

**** Television news exposure variable + radio news exposure variable + newspaper exposure

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When an edit is an edit can an edit be too much?
The effects of edits on arousal, attention, and memory for television messages.

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Abstract

This study examines the effect of the number of edits in a television message on viewers' arousal and memory for messages. Messages were chosen with 4 levels of edits (defined as a cut from one camera to another in the same visual scene): slow (0-7), medium (8-15), fast (16-23), and very fast (more than 24) in 60 seconds. Frequency and amplitude of skin conductance responses was used to measure arousal. Percent correct, and latency of response on a visual recognition task measured memory. Results edits: 1) increase autonomic arousal, and; 2) increase memory to a point after which it decreases. Results suggest that messages produced with between 8 and 23 edits per minute may maximize memory and attention and arousal.

When an edit is an edit can an edit be too much?

The effects of edits on arousal, attention, and memory for television messages.

Introduction

The literature on television effects frequently complains that although television viewers report high levels of exposure to television, memory for what they have seen is very low (Gunter, 1987). On the other hand, both advertisers and educators desire eye-catching, memorable video products. Advertisers try to produce television ads that are memorable and that lead to purchase of the advertised product. Educators utilize broadcast television or video formats to create unambiguous and memorable programs. Recent research demonstrates that production variables have an impact on how viewers respond to and remember television messages. This study measures the effects of a particular production feature, edits, on viewers' processing and memory.

Individuals respond to television messages with reflexive and cognitive responses that evolved over millennia. Information processing theory suggests that there are at least three processes involved in cognitive processing. The first process is encoding into short-term memory. The second process is storage of the information. And the third process is retrieval.

The limited capacity approach to television viewing (Lang, 1995; Lang, Bolls, Kawahara, Potter, & Dent, 1996) suggests that viewers' information processing resources are limited, and that increasing the cognitive resources allocated to one of these processes may decreases resources available to other processes. For instance, if more of a viewer's information processing resources are allocated to encoding, fewer resources are available for storage.

The limited capacity approach to information processing suggests that human responses to televised messages are directed both by characteristics of the message and the viewer. Production qualities of a television message, such as visual complexity and pacing, control some of the responses that limit or enhance processing capacity. Individual viewers also control information processing capacity by increasing or decreasing their concentration or vigilance. The limited capacity approach asserts that once information processing capacity is exceeded, some information will not be fully processed. In this case, individuals may be unable to recall or even to recognize some message content.

Theorists, such as Craik and Lockhart (1972), Lang (1995), and Zechmeister and Nyberg (1982) suggest that different kinds of retrieval tasks can be used to evaluate the completeness of the various sub-processes underlying information processing. For instance, Lang (1995) suggests that free recall tasks can be used to evaluate the effects of media on the completeness of information available at the retrieval stage of processing, cued recall tasks can be used to evaluate the effects of media on the completeness of the storage stage of processing, and recognition tasks to evaluate effects of media on the completeness of the encoding stage.

Research shows that television producers can affect viewers' information processing directly by incorporating into their messages production features that affect the allocation of processing resources. In particular, many structural features of television elicit what is called an orienting response.

The "orienting response" is an involuntary physiological and behavioral response that directs our attention toward new or relevant information in the environment. The orienting response is made up of a set of physiological and behavioral responses which include: turning sensory receptors (eyes, ears, nose) toward the stimulus, lowered heart rate, decreased blood flow to the muscles, alpha wave suppression in electroencephalogram (EEG), increased skin temperature, increased electrical conductivity of the skin, and increased blood flow to the brain (Lynn, 1966).

Orienting responses to television messages have been measured in various ways. Several measurement techniques used by psychologists have been adopted by communication researchers. Reeves, Thorson, Rothschild, McDonald, Hirsch and Goldstein (1985) were among the first to attempt to evaluate attention to television by measuring decreases in alpha waves -- called alpha blocking -- in the brain. They found significant alpha blocking in response to movement, camera techniques, and other visual structural features of television (Reeves, Thorson & Schleuder, 1986). Similarly, Lang and her colleagues have used heart rate to document orienting responses elicited by: related and unrelated cuts (Lang, Geiger, Strickwerda, & Sumner, 1993); movement, cuts, and edits (Lang , 1990); vidoegraphics (Thorson & Lang, 1992); and the onset of negative video (Lang, Newhagen, & Reeves, 1996).

The limited capacity approach to television viewing suggests that when a television message elicits an orienting response, this results in an increase in the allocation of processing resources to the message and that this increase in resource alters what viewers remember from the message. Several studies (Reeves, Thorson, Rothschild, McDonald, Hirsch & Goldstein, 1985; Thorson & Lang, 1989; Lang, 1990; Lang, 1991) demonstrate that formal structural features of television (such as cuts, movement, sound changes) which evoke the orienting response increase attention to television. Both Lang et al. (1993) and Geiger & Reeves, (1993) demonstrated that secondary task reaction times (often used as a measure of resources allocated to processing) increased immediately following related and unrelated cuts in messages.

However, despite the fact that orienting responses increase the resources allocated to processing a television message, this does not necessarily result in an increase in memory for the message. The effect of the orienting response on memory appears to be determined by the cognitive load imposed by the content of the message. For example, Thorson & Lang (1993) demonstrated that memory for videotaped lectures increased following orienting responses if the content of the lecture was easy for the viewer. However, if the lecture content was difficult, memory for information following the formal feature decreased.

Similarly, Lang et al. (1993) looked at memory for information immediately following either related or unrelated cuts. Related cuts were cuts where the information following the cut was narratively and semantically related to the information preceding the cut. Unrelated cuts occurred when the information following the cut was narratively and semantically unrelated to the information preceding the cut. Results showed that memory for information following the cut increased for related cuts and decreased for unrelated cuts.

The limited capacity approach suggests that unrelated cuts add more new information to the message than unrelated cuts do. The work of encoding and storing that new unrelated information requires more effort or processing resources than encoding and storing the expected or related information which follows a related cut.

The limited capacity approach predicts this phenomenon because it suggests that cuts elicit orienting which results in more resources being allocated to processing the message. However, cuts also introduce new information which requires these additional resources to be processed. According to this theory, memory for the message will begin to decline at the point at which viewers no longer have sufficient processing resources to encode, process, and store all the information contained in a message.

A recent study (Lang et al., 1996) extended this work by examining the effects of the *number of cuts* in a message on overall memory for the message. In this study, cuts were defined as a shift from one visual scene to a completely new visual scene. Thus, a cut always added new information in the form of a new visual scene. The number of cuts in 30 second messages was varied and memory for the messages was measured. The limited capacity approach predicts an inverted U-shaped curve since initially cuts will help viewers to process the message by increasing the processing resources allocated to the message. However, eventually, the viewer will be unable to keep up with the demand for processing resources and memory will suffer. Results showed that as the number of cuts increased from slow (0-1 cuts in 30 seconds) to medium (5-6 cuts in 30 seconds) viewers memory for the messages increased. However, as predicted, memory for fast messages (those with 10 or more cuts in 30 seconds) decreased.

These results suggest, however, that a different story might be told if one examined the number of *related* cuts in a message. When examined singly, memory for information in a message increased following related cuts (Lang et al., 1993). And because related cuts add less "new" information to a message than unrelated cuts, it seems logical to suggest that adding more and more related cuts to a message might not overload a viewers processing system as quickly or perhaps at all.

This study was designed to examine that question. For this study cuts are defined as a change from one visual scene to another (like the unrelated cuts in previous work). An edit, on the other hand, was defined as a change of one camera shot to another within the same visual scene. An establishing shot used as a definition of a visual scene and edits are juxtaposition of shots taken from that same visual scene. In other words, edits are camera changes within the context of a single location. For example, alternating speakers' faces during a conversation, would be described as edits. Unlike a cut which takes the viewer to a completely new environment, and therefore increases the amount of new information to be processed, an edit should elicit orienting but introduce less new information, and therefore require less effort to process. As a result, memory for the message may increase as a result of increasing the number of edits in a message, since overload is less likely to occur. This leads to Hypothesis 1:

> Hypothesis 1: As the number of edits in a television message increases, memory for the content of the message is likely to increase.

Previous research on the rates of cuts and edits suggests that fast paced messages (those with many structural features) elicit, in addition to increased attention, increased arousal in viewers. Because arousal is often associated with an increase in memory and liking for messages, this is an important variable to examine. Increasing the number of cuts in a message was clearly shown to increase both viewers self-reports of arousal and their autonomic arousal (measured by skin conductance) in the study reported above (Lang, et al., 1996). It is expected that increasing edits will similarly increase viewers' levels of autonomic nervous system activation -- or arousal. Hence:

> Hypothesis 2: As the level of edits in a television message increases, viewers' arousal will increase.

Method

This experiment is a mixed 4 (Order of Presentation) X 4 (Edits) X 5 (Message) design. To construct the stimulus tapes, 20 messages, each one-minute long, were chosen from a pool of television programs, advertisements, and feature movies. Messages were chosen to create four levels of edits (slow, medium, fast and very fast). Four experimental orders were constructed randomly with the aid of a computer software program called Superlab. Order of presentation was the only between subject variable.

Edits was operationalized as a change from one camera shot to another in one visual scene. A visual scene was defined as the location where related activities took place. Thus a football field was a visual scene, the juxtaposition of all shots taken from which were defined as edits. But things happening outside the football field and the juxtaposition of those shots were considered to be cuts rather than edits.

The four levels of edits were defined according to the following criteria. 0-7 edits within the one-minute message is slow, 8-15 is medium, 16-23 is fast, more than 24 is very fast paced. All the messages contained fewer than 3 cuts (a level defined as "slow" in previous research).

Subjects

Thirty nine communication majors participated in the experiment for class credit. Visual recognition, heart-rate, and skin conductance were collected for all 39 subjects.

Dependent variables

Memory was measured using a visual recognition task. Snippets of video were showed to the subjects who pushed the buttons on a joystick to indicate whether they recognized a snippet or not. Each snippet was about 6 frames long. Subjects viewed 120 snippets separated by 2 seconds of black. Sixty of the snippets came from the messages subjects had seen before while the other half, called foils, came from messages they had not seen before. Both percentage of correct response and the response latency, or the length of time it took the subject to respond were measured.

Arousal was operationalized using skin conductance measures. Skin conductance (SC) was collected using two Beckman standard AG-AGCL electrodes place on the palmar surfaces of the subject's non-dominant hand. Data were collected using a Coulbourne skin conductance coupler connected to a 386 computer outfitted with a labmaster A to D, D to A board. Skin conductance was sampled 10 times per second. Score XY a subprogram of VPM was used to score spontaneous skin conductance responses (SCR) during each message. Frequency of skin conductance responses, and size of the largest skin conductance response were used as indicators of arousal (Martin & Venables, 1983; Hopkins & Fletcher, 1994).

Procedures

An experimenter greeted the subjects upon their arrival. The experimenter arrived at least 15 minutes before the subject in order to set up the lab and run safety checks. Subjects were tested individually. The experimented explained to the subject that his or her heart rate and skin conductance data would be recorded using small sensors attached to his or her forearms and hands. The subjects signed a consent form before the experiment.

The experimenter stressed that because of the sensitivity of the recording instruments, it was imperative that the subject remain as still as possible during the experiment. The experimenter then asked to subject to pay close attention to the stimulus messages because his or her memory would be tested later. The experimenter then started the stimulus tape and the subject viewed the messages. After the messages, the experimenter instructed the subject on how to use the joystick. A recognition tape was then played and the subject indicated whether they had seen the snippets or not.

This experiment was done in conjunction with two other experiments reported elsewhere. As a result subjects performed six tasks during this experiment. First subjects either viewed television messages (this experiment) or read headlines on a computer screen, then they listened to a 6 minute radio message, and then they performed the task they hadn't done first (i.e. viewed television or read headlines). Following the three stimulus presentations subjects performed recognition tests for all three experiments in the order they saw the stimuli. The whole experiment lasted about 1 ½ hours.

Results

Hypothesis 1

This hypothesis predicted that as the level of edits increased, memory would increase. Significant main effects were found for both latency (F(3, 93)=28.90, p<.0001 epsilon-squared=.3544), shown in Figure 1, and percent correct responses (F(3, 93)=13.16, p<.0001 epsilon-squared=.2736), shown in Figure 2. Interestingly, both the latency and the percent correct data fail to support the hypothesis. Rather, they show, as was the case with "cuts", that increasing the level of edits improves memory up to a point (somewhere between medium and fast) after which recognition memory (indicative of thoroughness of encoding) declines, suggesting viewers processing systems are unable to keep up with the message. Percent correct was highest for medium level of edits (91.9 percent) followed by fast (84.0 percent) and very fast (84.4 percent), slow paced messages yielded the lowest percentage of correct answers (78.4 percent).

On the other hand, latency measures of memory showed the fastest response times (indicative of the best memory) for medium (M=866.69), slow (M=909.53), very fast (M=948.23), and fast (M=1203.95).

Hypothesis 2

This hypothesis predicts that viewers' arousal increases as the level of edits increases. The main effect for both number of skin conductance responses (F(3, 75)=13.80, p<.0001, epsilon-squared=.3299) and the size of the largest response (F(3, 75)=6.98 p<.0001, epsilon-square= .1869) were significant. As predicted, the frequency of responses (shown in Figure 3) was much higher in the fast paced messages (M=3.12 for fast messages; M=3.01 for very fast messages) than the slow (M=2.02) and medium paced messages (M=2.08). The size of response data showed a similar pattern (shown in Figure 4). Fast paced messages elicited larger responses (M=1.16 for fast messages; M=.97 for very fast messages) than slow (M=.79) and medium paced messages (M=.78).

Discussion

Results of this experimental study suggests 3 things. First, as predicted, increasing the number of edits in a television messages increases viewers' level of autonomic arousal. Second, increasing the number of edits in a message increases viewers' recognition memory for the message to a point, after which it decreases -- the same pattern that was shown in previous research for cuts. Third, by increasing the number of edits in a message, producers can increase viewers' attention and arousal levels. However, to maximize memory for the message, producers' must choose an appropriate level of number of edits (probably somewhere between 8 and 15 edits per minute).

These results may challenge the notion that edits might not introduce enough new information to ever overload viewer's information processing capacity (Bolls, Hibbs & Lang, 1995). Rather, these results suggest that edits are as likely to overload processing as cuts. Further, they appear to overload processing at approximately the same rate that cuts do. In previous research, evidence of decreasing memory in response to increasing cuts was found at about 7-10 cuts per 30 seconds. This study showed decreasing memory at between 16 and 23 edits per minute, which would correspond to 8-12 edits per 30 seconds. Thus, despite the differences in amount of information being introduced by the two structural features there is little evidence that this affects what is processed and remembered from the message.

It is also interesting to note that a medium level of edits is much better, for memory, than a slow level of edits. It would be interesting for future research to determine more precisely where the threshold lies as this may have important practical implications for the industry interested in getting viewers' attention and maximizing viewers' memory.

These results also show that, like cuts, edits can elicit autonomic arousal in viewers. Since arousal affects most aspects of information processing as well as liking for messages, it is good to know that simply using a two camera rather than a one camera production can increase arousal. It is interesting to note that the pattern of these results suggests that the relationship between arousal and edits may not be precisely linear. Slow and medium levels of edits appear to result in a low level of arousal while fast and very fast result in a higher level of arousal. Suggesting more of a step function than a linear relationship. This is different from previous research using cuts which showed increasing arousal levels for each level of cuts. However, this previous research, unlike this study, controlled for the arousingness of the content of the messages. Future research to further investigate the shape of the relationship between edits and arousal should control for arousingness of message content.

Finally the response latency results present an interesting question. Why is the response latency for very fast paced messages faster than the response latency for fast message? Theoretically, messages with the most edits should have elicited the longest response time. One possibility is that for very fast messages less of the information is from the message may be encoded, but (because the messages are highly arousing and receive high attention) what is encoded is stored extremely well. Thus, even though only a tiny part of the stimuli is processed and encoded, as Cameron and Fresco (1994) would argue, response latency under this situation is short because of a strong, but limited, set of memory traces which are rapidly activated.

This explanation might suggest that arousal (rather than level of edits) may be a better indicator of latency of response. Certainly visual inspection of these data suggest that level of autonomic arousal appears to be a good predictor of the latency of response given by the subjects.

In sum, these results continue to support the usefulness of the limited capacity approach to television viewing as a framework for investigating the impact of message variables on the information processing television messages. Future research should continue to further explicate the effects of edits and other structural features of television on viewers' processing of messages.

Figure 1: Latency of Response by Edits

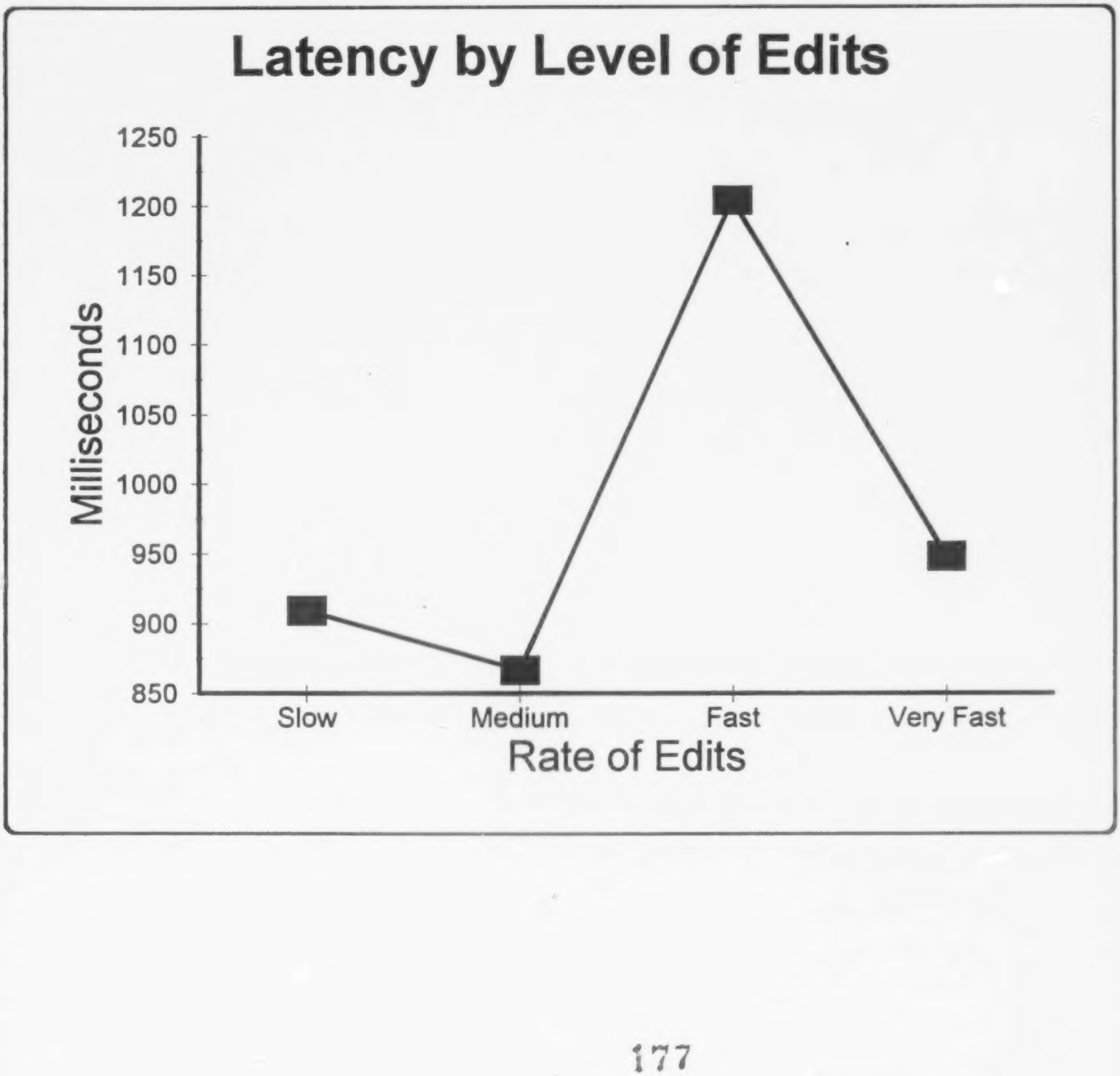

Latency by Level of Edits
Milliseconds
1250
1200
1150
1100
1050
1000
950
900
850
Slow
Medium
Fast
Very Fast
Rate of Edits

Figure 2: Percent correct by Edits

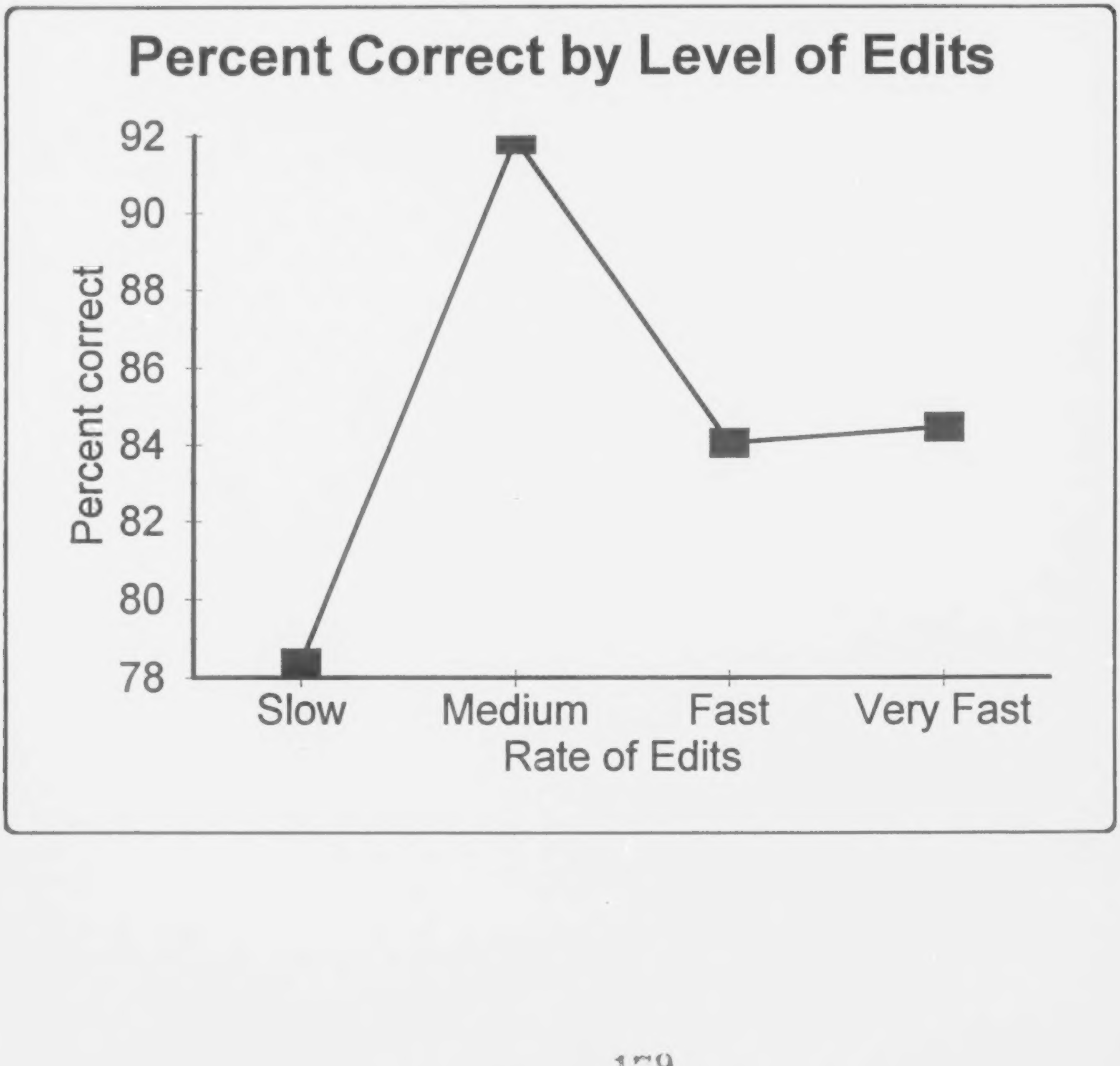

Percent Correct by Level of Edits
92
90
88
86
84
82
80
78
Percent correct
Slow
Medium
Fast
Very Fast
Rate of Edits

Figure 3: Frequency of SCR by Edits

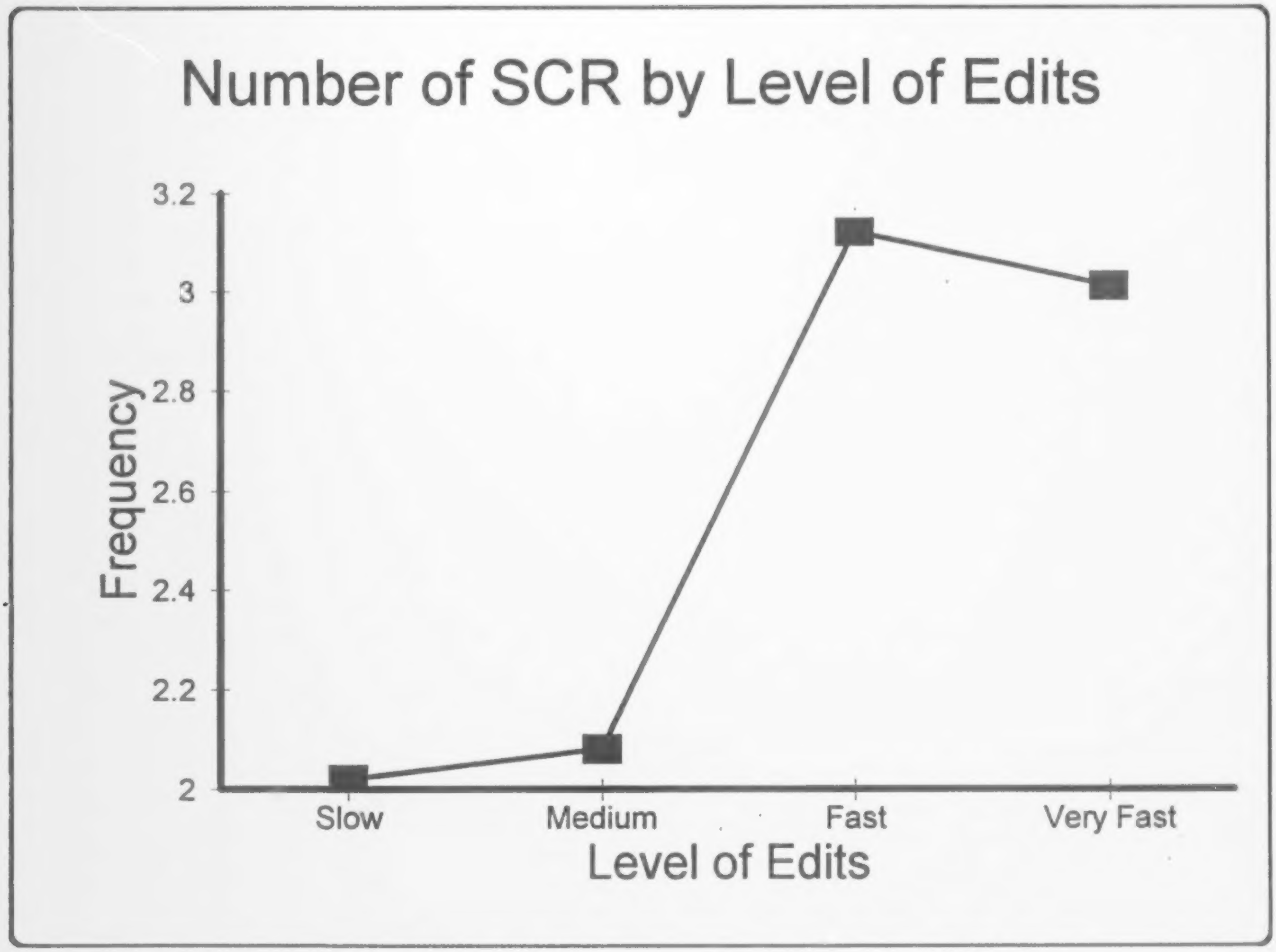
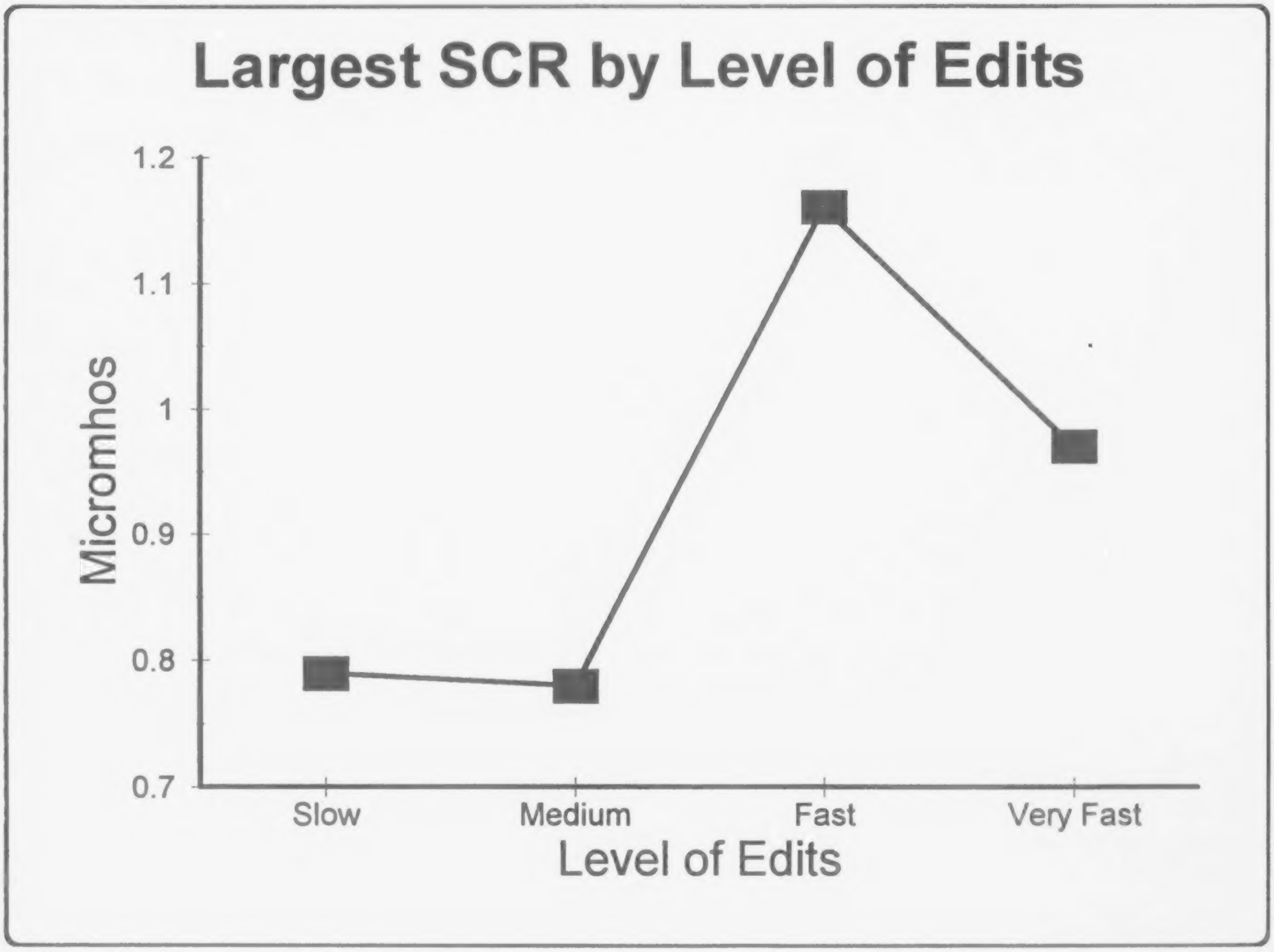

Number of SCR by Level of Edits
3.2
3
2.8
2.6
2.4
2.2
2
Frequency
Slow
Medium
Fast
Very Fast
Level of Edits

Figure 4: Size of largest SCR by Edits


Largest SCR by Level of Edits

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Mediating the media: Frames, attribution of responsibility, and individual media use

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Mediating the media: Frames, attribution of responsibility and individual media use

ABSTRACT

Following the research of Shanto Iyengar, this study examines how episodic and thematic framing in television and print media relate to public attribution of responsibility for poverty, racial inequality and violent crime. In the methodological tradition of Agenda Setting, it couples computer-assisted content analysis with survey data. It extends the analysis in the uses and gratifications tradition by including media use style as an independent variable. The study finds limited but significant results.

Mediating the media: Frames, attribution of responsibility, and individual media use

INTRODUCTION

The question of how media framing of issues influences the public has led political communication researchers down different paths to measure both the kind and extent of the frames, and the effects those frames have on their audience.[1] Framing has been defined as the selection, emphasis and exclusion of particular pieces of information that lead observers to particular conclusions or narrow possible courses of action. Communicators, according to Entman, "select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation and/or treatment recommendation for the item described."[2]

The definitions of framing vary from one researcher to another; this study follows the framing research of Shanto Iyengar.[3] It examines media framing of social problems and public attribution of responsibility for those problems.

Like agenda setting or spiral of silence, Iyengar's concept of framing is both a general metaphor and a specific hypothesis. Iyengar argued that differences in the framing of television news stories led to different attributions of responsibility. Iyengar defined news media framing in terms of thematic frames and episodic frames. He described thematic frames as placing "political issues and events in some general context"; episodic frames, on the other hand, focus "on specific events or particular cases."[4] In other words, thematic frames give a relatively broad background of information on the news story; an example might be reporting on poverty in terms of federal welfare policy, or structural causes of the problem. Episodic frames, in contrast, usually place a specific human face or faces in front of the audience as symbols of the issue; for example, episodic framing of poverty might tell the story of a single person or family on welfare, using their situation to frame the issue.

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[1] See Tuchman, 1978; Gitlin, 1980; Gamson and Modigliani, 1989; Entman, 1991, 1993; Pan and Kosicki, 1993; Parenti, 1993; Gandy, 1994.

[2] Entman, 1993, p. 52.

[3] Iyengar, 1991.

[4] Ibid., p. 2.

In Iyengar's studies, participants, who were recruited through a newspaper advertisement, viewed edited broadcasts of television news with particular stories manipulated to be framed either episodically or thematically. The experiments were designed to be as natural as possible, with a family room type setting.[5] Iyengar found that first, network news stories framed certain issues mostly episodically; thematic frames were less prevalent.[6] Second, Iyengar found that episodic framing tends to lead the audience to place responsibility for the problem, and for solving it, mainly on those personified in the stories.[7] To continue the above poverty example, subjects viewing poverty stories that were framed episodically were more likely to place blame on the destitute individuals in the stories themselves than were subjects who viewed poverty stories framed thematically.[8] Thus, the way news, in this case television network news, framed issues may indeed influence the opinions the viewing audience forms about a given issue.

Iyengar's findings have important implications for media researchers and practitioners. If episodic framing, an artifact of the story-telling process, is responsible for powerful media effects, then media researchers should examine the process in more detail. For media practitioners, knowledge of the potential impact of framing is crucial both to generate intended effects and avoid unintended ones.

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[5] Ibid., p. 23.

[6] Iyengar, 1991.

[7] Especially for poverty and racial inequality issues, two of the issues studied here. Ibid., p. 128.

[8] Ibid., pp. 46-61.

This study further tests the concepts of episodic and thematic framing by combining a content analysis of ABC World News Tonight transcripts and the front page of *The New York Times* with a telephone survey that included questions about media use and attribution of responsibility for poverty, racial inequality, and violent crime. The content analysis covered the one month period preceding the survey. While this study does not offer the same level of control as was enjoyed in Iyengar's experiments, the exposure to the media is more realistic and demand characteristics are minimized. *The New York Times* was included to allow for a comparison of framing between two forms of media. This adds to the understanding of how media frame certain issues. In addition we also expand on Iyengar's concept by examining how audience members interact with media. One reason for basing the study on real-world survey data is to test Iyengar's findings in field conditions; his original studies were controlled lab experiments.

The original thesis is extended in two ways. The first is the inclusion of print media in the form of front page stories in *The New York Times.* The second is to go beyond mere exposure to media and, in the uses and gratifications tradition, to measure the media effect as a product of specific functions of media use.[9] In short, the study addresses three questions:

1. ***What is the nature of framing across media and issues?*** The presence and proportion of episodic and thematic frames are analyzed between the two media and among the three issues.
2. ***How does framing relate to attribution of responsibility?*** Iyengar's hypothesis that episodic framing causes attribution of responsibility to be in the direction of individuals rather than government is addressed by comparing results of the content analysis and survey data.
3. ***How do media use and media use style relate to attribution of responsibility?*** With this question we extend the process of the possible impact of framing to include how audience members use the news media in their daily lives. Reasonable arguments can be made to support

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[9] See McQuail, 1984; McQuail, Blumler and Brown, 1972; Rosengren and Windahl, 1972.

opposite predictions for this question. On the one hand, the impact of framing might be enhanced when audience members pay more attention to the media. Attention is, after all, a crucial step in the communication process. On the other hand, those who pay more attention to the media may be influenced less by framing in that they may analyze the stories more critically or generate more counter arguments that those for whom the news could be likened to background clutter.

METHOD

The practice of following content analysis with survey data is well-established in the Agenda Setting tradition.[10] This study adds a factor analysis of media use style which allows for discussion of the importance of audience interaction with media in the uses and gratifications tradition. Particulars of the content analysis and survey are detailed below.

Content Analysis

The first step in this study was a computer-assisted content analysis of frames of three different issues in two types of media. The three issues were poverty, racial inequality, and violent crime.[11] The media analyzed for content were transcripts of ABC World News Tonight broadcasts and front-page stories in *The New York Times*, both found in a keyword search of the NEXIS on-line database. *The New York Times* was chosen because as the nation's leading newspaper, it often influences the news agendas of other media, both print and broadcast.[12] ABC's World News Tonight provided the only transcript available on-line of the three major network evening newscasts, but at the time of the analysis ranked first among them.[13] News stories were located using keywords[14] for both media during the month (Sept. 15-Oct. 14, 1995) leading up to the Carolina Poll.

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[10] McCombs and Shaw, 1972.

[11] These issues were chosen to coincide with three of the issues that Iyengar's study dealt with. They also match issues addressed in questions in the Fall 1995 Carolina Poll.

[12] See, for example, Reese and Danielian, 1989.

The KWIK keyword search function was used to find the phrases surrounding the keywords. This method found 305 entries which were downloaded and coded. Word processing software was then used to locate the keywords within the downloaded files, and the context of each phrase was then coded as episodic, thematic, or neither (if neither of the frames was clearly dominant). The unit of analysis was the sentence surrounding each keyword; the sentence was used to code the entry as specified above.[15] The date of the entry and the keyword used were also recorded.

These data were analyzed to look for differences in framing both among the media and among the issues. The sentence in which each keyword was found was used as the unit of analysis for both methodological and theoretical reasons. Methodologically, the KWIK function in NEXIS uses keywords to extract one or more sentences surrounding the keyword chosen, so using the keyword's sentence as the unit of analysis enabled the coder both to take advantage of the speed of the KWIK function to build a data set, and to use the common components of the data set to increase reliability in coding. From a standpoint of theory, the unit of analysis demonstrates that episodic and thematic frames can be found within units of the stories themselves, and that the same story could contain more than one frame. By using the sentence instead of the entire story as the unit of analysis, we therefore avoided a weakness in the Iyengar analysis, which coded entire stories as episodic or thematic regardless of the variable proportion of frames within them.[16]

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[13] In Fall 1995 World News Tonight maintained a rating of over 10 points (as a percentage of all households with televisions) and a share approaching 20 percent (of sets in use). NBC's Nightly News held second place and CBS's Evening News was third. Also, World News Tonight had led the other newscasts in the ratings for about three years prior to our analysis. *Hollywood Reporter*, 22 November 1995.

[14] The keywords used were: for "poverty," *welfare, AFDC (Aid For Dependent Children), hunger, homeless, dependent children, Medicaid, poverty*, and *poor*; for "racial inequality," *racism, affirmative action, African American, black(s), underclass*, and *inner city*; for "violence," *violence, killing, rape* and *murder*.

[15] An example of an excerpt coded as thematic: in an ABC story about the debate over welfare reform in Congress, the sentence was: "Congress put off a final vote on welfare reform until next week." ABC World News Tonight, 15 September 1995.

Survey

The survey was conducted in the week of October 14, 1995. A sample of 623 residents of North Carolina were surveyed using a form of random digit dialing. The median age of the respondents was 42. There were 270 males and 353 females. Median level of education was 13 years, while the median household income was between $30,000 and $40,000 per year. Variables were operationalized as described below.

Dependent Variables

As with the content analysis, poverty, racial inequality and violent crime were analyzed. Measures of responsibility for the three issues were assessed for use as dependent variables in regression analyses. Respondents were asked: "Who is responsible for dealing with poverty?"; "Who is responsible for dealing with racial inequality?"; and "Who is responsible for dealing with violence?". Possible answers for each question were "Government," "People themselves," or "It depends". For regression purposes, categories were combined to create a bivariate variable for each of the issues. The responses "Government" and "It depends" were combined and represent the idea that the government bears at least some responsibility for the issue at hand.

Independent Variables

Media use, style of media use, political leaning, and items measuring locus of control and political efficacy were assessed. To account for potential demographic differences age, gender, education and income were used as control variables.

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[16] Iyengar, 1991, pp. 18-19.

Media use was assessed by asking how many days in the last seven respondents watched television and read newspapers, and whether or not they read news magazines. While Iyengar's hypotheses focus on the effects of mere exposure to media, we would hypothesize that the relationship between media use and attribution of responsibility is a more complex one that includes how respondents interact with or use media on a daily basis. For this reason, five questions designed to tap individual media use style were included. These were "I keep up with the news (1) to make sure nothing affecting me has happened; (2) because it's important; (3) because it's exciting; (4) because it's a habit; and (5) to pass the time." Factor analysis indicated two underlying constructs which were labeled "active" and "passive" in terms of media use style. These results should be interpreted with caution, however, because there were not a large number of values above .3 in the correlation matrix.

Factor Loadings	"Passive"	"Active"
1. to make sure nothing affecting me has happened	.21	.68
2. because it's important	-.01	.68
3. because it's exciting	.55	.29
4. because it's a habit	.80	-.17
5. to pass the time	.57	.20

Items 1 and 2 clearly indicate active use of media, while 4 and 5 are clearly passive. Item 3, "I keep up with the news because it's exciting," loads more on the passive factor, but also has a moderate loading on the active factor. This may indicate that item 3 relates to both factors, or that it does not differentiate the factors as well as the other items.

Political leaning was operationalized through a seven point Liberal/Conservative scale with higher values representing the more conservative response. Locus of control was assessed by having respondents agree or disagree with the statement "Life is basically a matter of luck, so it's better not to plan." Those who disagree with the statement are likely to have a more internal locus of control. Political efficacy, meanwhile, was operationalized through a similar item which stated "More often, government does the right thing." Agreement would be expected to relate to higher feelings of political efficacy.

Stepwise regression was used and variables were entered in three blocks. The variables age, gender, education and income were entered first to control for demographics. Then, political leaning, locus of control and political efficacy were entered. Finally, television viewing, newspaper reading, magazine reading and the "active" and "passive" media use style variables were entered. Findings are discussed in the results section.

RESULTS

Content Analysis

The purpose of the content analysis was to determine what frames were commonly used for the selected issues and in the two media.

As Table 1 shows, the dominant frames differed depending on the medium, taking all three issues together as a whole $\{X^2=(\underline{N}=305)\ 10.45,\ p<.01\}$.[17] The ABC news broadcasts were more likely to frame the three issues episodically than were the entries found in the *New York Times*. Out of 192 entries in the ABC transcripts, 63.0% were framed episodically. Only 46.0% of the *Times*' 113 entries were framed episodically. Only 16 of the entries were coded as being neither clearly episodic or thematic.

However, when the frames are analyzed by issue, the relationship between the medium and the frame is specified by the issue being covered. The race and violent crime issues tended to be framed episodically by both media, but the poverty issue was framed thematically by both media, as Tables 2 and 3 show. This relationship between the medium and the type of frame for poverty entries is significant$\{X^2=(\underline{N}= 103)\ 9.06, p<.01\}$.

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[17] The values of the chi-square were statistically significant, allowing us to conclude that the observed frequencies differed enough from the expected frequencies (had the values been distributed randomly) to justify rejection of the null hypothesis that there was no relationship between the medium, the frame, and the issue. For a discussion of the use of chi-square with nominal data and the assumptions involved, see Blalock, 1979, pp. 279-282.

Survey results

Table 4 shows the frequencies of responses to the questions about attribution of responsibility. In general, respondents attributed responsibility for social problems to "people themselves" rather than to government. Respondents were least likely to attribute responsibility to government for dealing with racial inequality and most likely to attribute responsibility for dealing with violence to the government.

Regression analysis with government responsibility as the dependent variable and demographics, self-reported media use and the factors described above provided small, but significant results. They are discussed in more detail below. For each issue, age, gender, education and income were entered as a block. Political leaning, locus of control and political efficacy were entered as a second block. Finally, television viewing, newspaper reading, magazine reading and the "active" and "passive" media use style variables were entered. Stepwise regression was used with an inclusion level of .05 and exclusion level of .10.

Poverty

As Table 5 shows, responsibility for dealing with poverty showed a statistically significant relationship with income, political leaning, and "active" use of media. Together these account for about 7 percent of the variance in responsibility for dealing with poverty. Those with higher incomes and those who reported being more conservative were more likely to attribute responsibility for poverty to individuals. However, more active users of the media were more likely to attribute responsibility for dealing with poverty to the government. Each block represents a different equation generated by stepwise regression.

Racial Inequality

In Table 6, responsibility for dealing with racial inequality showed a statistically significant relationship with income, "active" use of media, and television viewing. These three variables account for about 3 percent of the variance in responsibility for dealing with racial inequality. Those with higher incomes and those who watch more television were more likely to attribute responsibility for dealing with racial inequality to individuals, while, as with poverty, more active media users were more likely to attribute responsibility for dealing with racial inequality to government. Each block represents a different equation generated by stepwise regression. No variables were entered in the second block.

Violent Crime

Responsibility for dealing with violent crime showed a statistically significant relationship only with "active" use of media. Table 7 shows that this variable accounted for a mere 1 percent of the variance in responsibility for dealing with violent crime. As with responsibility for dealing with poverty and responsibility for dealing with racial inequality, the relationship was such that more active users of media were more likely to attribute responsibility for dealing with violent crime to government rather than individuals. Since only "active media use" was found to have a significant relationship with attribution of responsibility for dealing with violent crime, it is the only variable shown. No variables were entered in blocks 1 and 2.

DISCUSSION

The three questions listed earlier and limitations of the study are discussed below. A summary and implications follow.

1. ***What is the nature of framing across media and issues?*** The content analysis told us that, on the whole, the issues we examined were framed episodically. The three issues were framed episodically most of the time (57 percent) with 63 percent of ABC News and 46 percent of *The New York Times* entries being coded as episodic. In addition, consonant with the idea that television is more episodic, ABC News was less thematic and more episodic than *The New York Times.* However, in our sample, the particular issue did make a difference. There was a strong tendency for both the ABC nightly news broadcasts and the front-page entries in *The New York Times* to frame poverty in clearly thematic terms. In contrast, both media covered race and crime in expectedly episodic ways for most entries.

One reason for this large difference is the national news environment during the month of analyzed coverage. The main stories in the race category were the criminal trial of O.J. Simpson and the "Million Man March" led by Louis Farrakhan. Such major, ongoing stories provided the national news media with issues that were almost always framed in episodic terms (e.g., Simpson and Farrakhan as continuing symbols of race relations). Although there were no major stories in the crime category that dominated the month's coverage the way those two stories dominated race, the crime entries also presented the issue mostly as one involving individuals rather than society. In contrast, nearly all the stories about poverty during the period were framed in terms of the budget battle between Congress and the president, especially regarding the effect of changes in the

Medicaid program. This type of coverage matched Iyengar's definition of thematic coverage as characterized in part by public policy debates or outcomes.[18]

This suggests that the national print and broadcast media may influence each other both in agenda-setting terms (what issues receive attention) and in the way they frame particular issues (what perspectives are given salience). The results related to poverty also seem to indicate that the frame used to cover an issue may be determined by more than just the medium involved. Particular events, such as budget battles in Congress, may lead to more thematic or episodic coverage, regardless of the medium.

2. ***How does framing relate to attribution of responsibility?*** Based on the greater proportion of episodic framing and given Iyengar's hypothesis, the attributions of responsibility should be in the direction of individuals rather than government. In support of this hypothesis, univariate findings indicate that respondents did tend to attribute responsibility to individuals rather than government. However, these findings only mean that it is possible that media are influencing the respondents, but should not be taken as strong evidence since the correlation could be a response to any number of other variables. Particularly, the journalists' decisions to frame issues in episodic ways may be a reflection of generally held public views rather than a cause of those views. In addition, the attribution of responsibility and the type of framing do not indicate a clean pattern. While poverty was framed more thematically than the other issues, government was not seen as more responsible for dealing with the problem of poverty. Instead, with 36 percent of respondents placing some responsibility on government, poverty fell between racial inequality, which had the least amount of government responsibility (21 percent), and violent crime, which had the most government responsibility of the issues examined (41 percent).

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[18] Iyengar, p. 18.

3. ***How do media use and media use style relate to attribution of responsibility?*** The regression analysis also provides limited support for the impact of framing on attribution of responsibility. It should first be noted that the variance explained (R^2), while statistically significant, is quite limited: 7 percent for poverty, 3 percent for racial inequality, and 1 percent for violent crime. Second, direct media use, in the form of television viewing, appears in only one issue (racial inequality). This indicates that more than mere exposure to media is at work in influencing how attributions of responsibility for social problems are made.

The most interesting finding is the tendency of "active" media users--those who keep up with the news "because it's important" and "to make sure nothing affecting me has happened" but not "because it's a habit or "to pass the time"--to be more likely to attribute responsibility to the government for dealing with all three of the social problems. This may indicate that frames are more likely to influence members of the audience who use the media more as resource to fill time than those who interact with the media on a more deliberate basis. It would stand to reason that more active users might produce counter arguments to the persuasive impact of episodic frames, while passive users would simply take the message of the frames at face value.

Limitations

This study does not provide definitive answers for those who want to know what the impact of media frames may be. Through use of a survey, we gained breadth but sacrificed depth and control. A study of additional indicators of media use and media use style may have shown a clearer relationship between framing and attribution of responsibility. Nevertheless, the data do have the advantage of being drawn from a diverse population, making it more generalizable than the traditional experiment with college students as participants. In addition, the impact of media frames may be a *fait accompli*. That is, the process of forming public opinion towards the issues studied may have already taken place. Indeed, a majority of people already believe that individuals rather than government are responsible for dealing with these problems. If, in fact, a ceiling has already been reached, no amount of correlational research will show a great effect.

SUMMARY AND IMPLICATIONS

This study supports the original Iyengar framing study showing that media do tend to frame social issues in episodic rather than thematic terms. As a whole, in both media, issues were framed episodically. However, it also indicates that particular events have an impact on the way an issue is covered at a given time. Television news is not always episodic. Poverty, for example, was framed thematically by both media in the time period analyzed. These differences among the issues suggest that researchers interested in this type of framing must actually conduct analyses of media content and cannot simply assume that the coverage will be consistently framed in particular ways across issues and time.

A direct relationship between the framing pattern in the content analysis and attribution of responsibility in the survey was not apparent. One possibility is that this indicates the absence of a real world media effect. This may also reflect differences among the issues examined that mask a real media effect. Further studies that include more issues, additional indicators both of media use and attribution of responsibility could help to resolve this question.

In addition, if frames do indeed operate as Iyengar hypothesized, we also see evidence that how a person uses the media is important in determining what impact framing may have on attribution of responsibility. Active use of media seems to moderate the impact of framing. From a theoretical standpoint, examining the psychological basis of media effects and the interaction between audience members and the media becomes a priority. For media consumers, the implication is that possible manipulation by the media is reduced by more active use of media.

Taken together, these findings show that the relationship between media framing and attribution of responsibility is a complex one that may be mediated both by events outside the media and by the individual media use patterns of individual audience members. The answer to Iyengar's question "Is anyone responsible?" seems to be that both the audience and the media may bear some responsibility for the impact of media frames.

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Table 1 Frame by Medium

Count Row Pct Column Pct Total Pct	ABC News	The New York Times	
	121	52	173
Episodic	69.9%	30.1%	
	63.0%	46.0%	
	39.7%	17.0%	56.7%
	65	51	116
Thematic	56.0%	44.0%	
	33.9%	45.1%	
	21.3%	16.7%	38.0%
	6	10	16
Neither	37.5%	62.5%	
	3.1%	8.8%	
	2.0%	3.3%	5.2%
Column Total	192	113	305
	63.0%	37.0%	100.0%

Table 2 Issue by Frame controlling for Medium

	ABC News		
	Episodic	Thematic	Neither
Poverty			
Count	8	39	1
Row %	16.7%	81.3%	2.1%
Col. %	6.6%	60.0%	16.7%
Race			
Count	57	14	1
Row %	79.2%	19.4%	1.4%
Col. %	47.1%	21.5%	16.7%
Violence			
Count	56	12	4
Row %	77.8%	16.7%	5.6%
Col. %	46.3%	18.5%	66.7%

Table 3 Issue by frame controlling for medium

	The New York Times		
	Episodic	Thematic	Neither
Poverty			
Count	2	46	8
Row %	3.6%	82.1%	14.3%
Col. %	3.8%	90.2%	80.0%
Race			
Count	26	4	0
Row %	86.7%	13.3%	0.0%
Col. %	50.0%	7.8%	0.0%
Violence			
Count	24	1	2
Row %	89.9%	3.7%	7.4%
Col. %	46.2%	2.0%	20.0%

Table 4 Attribution of responsibility

	Frequency	Percent
Who is responsible for dealing with Poverty?		
Government	93	14.9
People themselves	374	60.0
It depends	134	21.5
Don't know/No Answer	22	3.5
Who is responsible for dealing with Racial Inequality?		
Government	49	7.9
People themselves	478	76.7
It depends	80	12.8
Don't know/No Answer	16	2.6
Who is responsible for dealing with Violence?		
Government	124	19.9
People themselves	349	56.0
It depends	134	21.5
Don't know/No Answer	16	2.6

Table 5
Regression of responsibility for poverty

Variable	R	R^2	Adjusted R^2	F	t values	b	Beta values
Block 1	.15	.022	.020	8.65 (p<.01)			
Family Income					3.01 (p<.01)	.037	.150
Block 2	.21	.043	.038	8.38 (p<.01)			
Family Income					2.77 (p<.01)	.035	.14
Political leaning					2.82 (p<.01)	.035	.14
Block 3	.27	.074	.067	9.97 (p<.01)			
Family Income					3.01 (p<.01)	.15	.150
Political leaning					3.05 (p<.01)	.15	.15
"Active" media use					-3.56 (p<.01)	-.18	-.17

Table 6
Regression of responsibility for racial inequality

Variable	R	R^2	Adjusted R^2	F	t values	b	Beta values
Block 1	.12	.015	.012	5.69 (p<.05)			
Family Income					2.39 (p<.05)	.026	.122
Block 2	.17	.028	.024	5.54 (p<.01)			
Family Income					2.55 (p<.01)	.027	.130
"Active" media use					-2.31 (p<.05)	-.047	-.118
Block 3	.20	.039	.031	5.02 (p<.01)			
Family Income					2.63 (p<.01)	.028	.134
"Active" media use					-2.41 (p<.01)	-.048	-.122
Television viewing					1.98 (p<.05)	.018	.100

Table 7
Regression of responsibility for violent crime

Variable	R	R^2	Adjusted R^2	F	t values	b	Beta values
Block 3	.12	.014	.011	5.26 (p<.05)			
"Active" media use					-2.29 (p<.05)	-.058	-.118

NEW MEDIA USE AS POLITICAL PARTICIPATION

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NEW MEDIA USE AS POLITICAL PARTICIPATION

ABSTRACT

This chapter reexamines the contention that mass media have been a primary cause of the erosion of civic life and that increased media reliance, especially on television, has led to a decrease in "social capital" or citizen engagement in community affairs. Data are presented from two election-year surveys of suburban Maryland residents showing that political audiences regard several forms of "new media," including political talk radio, computer discussion groups, and call-in television, as well as traditional network news, as civically useful and politically important. Call-in shows in particular predict a significant amount of interest in politics. Consistent with these findings, the study concludes that use of the new media, especially political talk shows and the Internet, is an emergent form of civic participation for an increasing number of voters. Rather than destroying civic life, as the social erosion thesis maintains, certain media channels appear to be engaging the electorate and building a new base of mediated civic activity that may rival conventional forms of participation.

New Media Use as Political Participation[1]

An enduring paradox of contemporary American democracy is the apparent stability of the political system in the face of widespread voter disaffection, withdrawal from conventional forms of civic participation, and political ignorance (Conway, 1991). Given a politically uninformed mass citizenry (Neuman, 1986), anger, apathy, and cynicism in the electorate (Cappella & Jamieson, 1996; Edsall, 1996; Morin & Balz, 1996; Pearlstein, 1996; Tolchin, 1996), low voter turnout (Conway, 1991), and limited opportunities for meaningful participation in mass politics (Entman, 1989; Fallows, 1996), how does democracy continue to effectively function--if it indeed requires the active consent of the governed to operate? This chapter addresses the question of social-political stability by investigating evidence for ways in which the so-called "new media," including political call-in television, talk radio, and the Internet, are emerging as new forms of civic participation that *facilitate* and *enable* social connections rather than tear apart the societal fabric, as critics of traditional mass media contend.

Political stability and legitimacy were called into question during the Vietnam and Watergate eras when political scientists (e.g. Robinson, 1975) noticed declining levels of institutional trust and attributed part of this crisis of legitimacy to television. The notion that television acts as a corrosive influence on civic affairs has recently experienced a resurgence owing primarily to the work of Putnam (1993, 1995a, 1995b, 1995c), who asserts that the introduction of television into American society in the 1950s was a major factor in the subsequent decline of social trust, community networks, and participation in civic organizations; together, these trends have resulted in a net loss of the nation's store of "social capital."

Like Robinson's (1975) videomalaise argument--that television induces a sort of electoral ennui--Putnam's social erosion thesis has received a good deal of critical attention (see Elliott, 1996; Lipset, 1995; Norris, 1996; Schudson, 1996; Skocpol, 1996; Valelly, 1996). Putnam (1995c) suggests a number of potential causes for this decline of civic engagement but ultimately pins his argument on the purported attitudinal and time displacement effects of television.[2] While defending newspaper reading, which shows a positive association with social trust and group membership in the General Social Survey data for 1974-1994, he issues a blanket indictment of television. Without distinguishing between format or genre--entertainment and news, audience participation shows or one-way broadcasts--Putnam (1995c) asserts that television viewing alone "might directly account for as much as one-quarter to one-half of the total drop in social capital" since the mid-1970s (p. 678).

Putnam's assertions about television's negative impact on civic engagement represent a traditional view of media effects that this study calls into question on at least three grounds. First, social science, including both political science and communication research, has long had difficulty isolating direct media effects outside of controlled laboratory settings (Iyengar & Kinder, 1987; Jamieson & Cappella, 1996). As Bartels (1993) observes, the scholarly literature on this subject has been much better at "refuting, qualifying, and circumscribing the thesis of media impact than at supporting it" (p. 267). Second, a growing number of constructionist scholars (Dahlgren, 1995; Just et al., 1996; Neuman, Just, & Crigler, 1992) regard media use as central to the processes of social meaning production and public opinion formation, constituent elements of civic involvement. Third, a steady stream of audience research has conceptualized media consumers--the viewing electorate, one might say--as active and interpretive rather than passive and easily manipulated (see White, 1994).

Yet while constructionists and audience researchers may be comfortable describing voter experiences with media as an important and central aspect of civic life, mainstream political communication approaches have traditionally assigned little importance to the participatory potential of mass media. Media use by the electorate, whether new or old, has only started to surface in political communication research as a type of participation (e.g. Hofstetter et al., 1994; O'Sullivan, 1995; Page & Tannenbaum, 1996). Since the classic voting studies of the 1940s and 50s, the role of media in politics has largely been viewed from a perspective that privileges the needs of the political system, in particular the electoral component of that system, and the views of political elites (Chaffee & Hochheimer, 1985, p. 269). Such staid notions virtually ignore how members of the audience may actually benefit from the evolving ecology of the new political communication environment, in which opportunities for active participation are increasingly abundant.

Indeed, during the 1996 presidential campaign major and minor candidates and parties alike posted and continuously updated home pages on the World Wide Web (Corrado, 1996; Margolis, Resnick, & Tu, 1997). Listservs were established for the Iowa caucuses and New Hampshire primary and media organizations channeled considerable resources to such online ventures as PoliticsNow and AllPolitics, opening new spaces for voter/media/candidate communication. During the primaries, the Dole for President campaign reported that its home page received more than 3 million "hits," or visits, in its first six-months of operation, with over 10,000 people joining the campaign e-mail list and 1,700 registering as volunteers (Dongen, 1996). On election night, political Internet sites received an estimated 50 million hits, breaking previous records for online activity

(Weise, 1996). As Corrado (1996) observes, the new media have the capacity to "promote civic involvement simply by making it easier to participate" (p. 13).

In the context of this chapter, "new media" refer to the hybrid forms of mass communication that incorporate real-time feedback channels, including radio and television talk shows that respond to listener calls, faxes and e-mail messages, and online information services sponsored by major media organizations, such as MSNBC, AllPolitics, or PoliticsNow.[3] The central research question thus concerns whether and to what extent use of the new media is becoming an integral part of civic life--a bonafide form of civic participation for our information age. As Muir (1992) - noted during the 1992 presidential election, in a rapidly changing information environment it is important to ask "whether there is an actual decline in participation, as opposed to a decline in our traditional conceptions of what citizen involvement is in an evolving technological society."

Reconsidering Participation

Before specifying the research design of the present study, a further look at traditional conceptions of political participation may be in order. Verba and Nie (1987) identify four major categories of participation variables: voting, campaign participation, community activities, and leader or legislator contact. In Putnam's study, television exposure is conceptualized as an independent variable acting on the dependent variable, social capital (which is closely related to political participation), and does not constitute active involvement per se. Instead, television is seen as the "800-pound gorilla of leisure time" (Robinson & Godbey, 1995), a form of passive spectatorship so consuming that it displaces "nearly every social activity outside the home, especially social gatherings and informal conversations" (Putnam, 1995c, p. 679).

Conway (1991) defines political participation as "those activities of citizens that attempt to influence the structure of government, the selection of government authorities, or the policies of government (pp. 3-4). She distinguishes between active participation, which is instrumental or goal-oriented (voting, seeking office, working for a candidate, writing public officials), and passive kinds of involvement, such as attending ceremonies or paying attention to government and politics. Thus, Conway (1991) argues, "following political campaigns through the mass media could be considered a passive form of political participation" (p. 4). The advent of interactive political communication, or "political interactivity" (Hacker, 1996a, 1996b), has altered the participatory landscape, however. With the exception of voting, each of Conway's conditions for active involvement can now be met through the new media.

Measuring civic involvement depends to a large extent on the way criterion variables are operationalized and defined. As noted, political science has defined participation primarily as active behaviors and media use as idle spectatorship. Consistent with this view, Kerbel (1995) writes: "Television viewing is a passive diversion, something we can do while cradling a beer. Involvement in politics is an active enterprise, something we do with our neighbors. The two do not mix very well" (p. 131). For political communication traditionalists, historical institutional requirements, stemming from the tendency to analyze politics in terms of the needs of the political system, continue to take precedence over the changing political landscape, in which mass media play an increasingly central role (Arterton, 1984; Rose, 1994). In a new media environment, defining democratic legitimacy almost strictly in terms of conventional categories of participation, chief of which is voting, may be clinging to outdated notions of popular consent.

Indeed, traditional participation measures may be inadequate indicators for explaining the changing relationship of the citizen to the state. Rather than "relegating media-related activity to the status of a minor mode of political participation," as much political communication research has done for decades through the American National Election Studies (Chaffee & Hochheimer, 1985, p. 284), media involvement--at least new media involvement--might instead be profitably treated as a major mode of civic participation; that is, as an integral component of popular consent.

From this perspective, the question of democratic legitimacy and political stability in the face of low voter turnout, decreased traditional participation, and a politically uninformed mass electorate may be explained by an important construct that isn't being measured: civic engagement through media. For the mass electorate, regular involvement with media might well be taking the place of direct, sporadic involvement in politics. Moreover, as Schudson (1996) points out, the decline of civic participation in its conventional forms "does not demonstrate the decline of civic mindedness" (p. 18, italics added). Civic involvement may be short-lived or situational and not show up in indices of group membership. Therefore, to ask what traditional indicators of group or political participation say about the state of democracy or civic society may be posing the wrong question. Concerned students of media and politics might instead ask how citizens connect with and legitimate the political system in new ways, especially through the rapidly changing channels of mass communication.

Data and Methods

This paper uses data from two election surveys from 1996. The first was a mail survey of Prince George's County, Maryland residents conducted in late February during the early primary season under the auspices of the Center for Research in Public Communication at the University of Maryland.[4] Altogether, 193 completed questionnaires were returned for a response rate of about 20 percent.[5] A second, post-election telephone survey was conducted in the same geographic area in early November as part of the national Election Team Project coordinated by the Political Communication Center at the University of Oklahoma. In this second wave, 203 Prince George's County residents were contacted with a response rate of approximately 60 percent.[6]

At least since the publication of The American Voter, political interest has been used as an indicator for psychological involvement in politics and civic life (Campbell, Converse, Miller, & Stokes, 1960, p. 102). The political interest variable is thus employed as the main criterion in the primary survey to investigate whether media uses encourages or discourages civic engagement. Although political interest is not a direct measure of civic engagement, it can serve as a rough proxy for level of general civic involvement and awareness. In the post-election survey, the political interest question was not asked, so whether respondents reported voting is employed as a measure of civic involvement.

Hypotheses

The first hypothesis stands Putnam's social erosion thesis on its head. Given the argument that the new media, particularly call-in shows and Internet discussion groups, "may be less a substitute for civic engagement than a new and perhaps insidious form of it" (Schudson, 1996, p. 20), it can be predicted that:

H_1 There will be a positive association between use of the new media and political interest during the primary season, and report of voting in the general election.

After taking associational relationships into account, a second hypothesis predicts that:

H_2 New media use will emerge as a significant predictor of political interest, even after controlling for other demographic, political, and media use variables.

The primary survey also included a set of questions asking respondents to rate the *usefulness* of various "ways of participating in our political system." These items are divided among such traditional activities as attending meetings or rallies, contacting elected representatives, displaying posters or lawn signs, and voting on the one hand, and such media behaviors as watching TV news or reading the newspaper, discussing politics by computer, and listening to talk radio or call-in television on the other. Similarly, the post-election survey asked respondents to rate the *political importance* of participating in the same activities.

Putnam (1995c) argues that one of the contributing factors to the erosion of social capital is generational: older people belong to more organizations, vote more often, are more trusting, and read newspapers more frequently than younger people. Putnam identifies this group as the "long civic generation" born roughly between 1910 and 1940. Much journalism research and professional commentary confirms the age bias in newspaper readership (see Stepp, 1996). Clearly, when younger people encounter mass media, they tend toward television and, to the extent that it has become a mass medium, the World Wide Web. Given Putnam's finding of a traditionalist civic generation and the argument that media involvement is increasingly regarded by the audience as important as other forms of more traditional civic participation, it can be predicted that:

H_3 Respondents in younger age groups will rate the usefulness and importance of televised modes of participation more highly than respondents in older age groups.

Results

In the primary survey, the political interest question simply asked: How interested are you in politics? The question featured a 7-point response scale, where 1=not very interested and 7=very interested. Four respondents did not answer the question and were removed from the analysis, leaving a sample N of 189. Collapsing the results into three categories showed that about half the cases were clustered at the higher, more interested, end of the scale (n=94). About a third of the respondents (n=59) reported a middle-range interest in politics, while the number of those not very interested in politics at the lower end of the scale was just under 20 percent (n=36). The sample as a whole appeared to be slightly more interested in politics than not (M=4.7).

To test whether there was any relationship between political interest and media use, bivariate Tau-b correlations were run for political interest and a series of political, media, and computer use variables.[7] Computer use variables were included to represent the emergent form of online media. Table 1 shows that three of the four new media variables--visiting political Internet sites (b=.25, p<.001), television and radio call-in shows (b=.23, p<.001), and Internet access (b=.18, p<.01)--are significantly related to political interest, trailing only strength of party identification (b=.30, p<.001). National news viewing also shows a positive association (b=.13, p<.05) and newspaper reading approaches significance (b=.11, p<.10). These findings support the first part of Hypothesis 1, which said that there will be a positive association between use of the new media and political interest during the primary season.

Table 1 About Here

In the post-election survey, t-tests were run to determine whether significant differences existed between voting and non-voting in relation to media and computer use. Overall, 74 percent of respondents said they voted (perhaps reflecting a social desirability effect in the sample), with slightly more women (76 percent) answering affirmatively than men (72 percent) but not at significant levels. On average, respondents who said they voted also reported heavier media use across all channels, including newspapers, radio, television, and the Internet. Table 2 shows significant differences for both traditional and new political media use, including television talk shows ($\underline{t}$=2.11, p<.05) and Internet use ($\underline{t}$=2.63, p<.01).

Table 2 About Here

Next, the continuous media use variables from the post-election survey were collapsed into categorical data and used in cross-tabs with the vote report variable. Two emerging sources of political news, television talk shows ($\underline{X}^2$=5.81, p<.05) and the Internet ($\underline{X}^2$=9.13, p<.01), show a positive association with vote report. These results support the second part of Hypothesis 1, that there will be a positive association between voting and use of the new media in the general election.

Multivariate hierarchical regression was used to further assess the relationship between new media use and political interest in the primary survey. Table 3 shows the results. As one would expect in a test of political interest, party identification (beta=.31, p<.001) and strength of party identification (beta=.41, p<.001) emerge as significant predictors after controlling for such demographic factors as income, education, race, and gender. However, in the third step--the test of media influence on political interest--the impact of call-in shows persists, even after accounting for the effect of demographic and political influences (beta=.36, p<.001). For every one-unit increase in call-in media use, there is a .36 increase in political interest. This finding supports Hypothesis 2, that use of the new media will emerge as a significant predictor of political interest, even after controlling for demographic and political variables.

Table 3 About Here

Additionally, the results for the final step of the regression show that, even after accounting for media use variables, access to the Internet emerges as a moderate predictor of political interest (beta=.25, p<.01). Overall, the regression model accounts for 43 percent of the explained variance (adjusted $\underline{R}^2$) in political interest. Interestingly, the regression results do not support the argument that normal television viewing has a negative effect on civic engagement, at least as measured by the dependent variable, interest in politics. Television news viewing, whether local, national, or CNN or C-SPAN, is positively related to political interest but not significant. Newspaper reading, on the other hand, was negatively related but not significant. Both of these findings run counter to the social erosion thesis.

To test Hypothesis 3, analysis of variance was employed to compare the perceived usefulness of traditional and mediated forms of civic participation by age group in the primary survey, and the political importance of the same activities in the post-election survey.

In the primary survey, the participation items were measured on a scale from 0-100 that asked primary season respondents to rate the usefulness of the following activities: attending political meetings or rallies; watching TV news or reading the newspaper; writing or phoning elected representatives; discussing politics by computer; listening to talk radio or call-in television; displaying stickers, posters, buttons, or lawn signs; and, voting. In the post-election survey, respondents were asked to rate the political importance of the same items on a 5-point scale, where 1=unimportant and 5=important. In both data sets, the age variable was collapsed and grouped into five categories: 18-35, 36-45, 46-55, 56-65, and 66 and over. The latter two categories correspond to Putnam's "civic generation" born between 1910 to 1940.

In the primary data, the analysis revealed significant differences between different age groups for the usefulness of attending political meetings or rallies (F=3.14, $p<.05$) and discussing politics by computer (F=6.50, $p<.0001$). Of the remaining dependent variables (call-in shows, writing leaders, displaying yard signs and bumper stickers, voting, and television viewing and newspaper reading), none showed significant differences between age groups, perhaps reflecting a general consensus as to their relative utility. Interestingly, usefulness of voting emerged as the least significant item (F=.15, $p<.97$), presumably due to the high esteem in which voting is held across age groups (overall M=93.3).

Younger respondents in the age groups 18-35 and 36-45 rated political meetings or rallies--a traditional form of civic participation--the highest on the 0-100 usefulness scale (M=53.1 and M=53.5, respectively), followed next by respondents aged 46-55 (M=47.6). For older respondents, Putnam's so-called "civic generation," the mean scores drop further (M=36.8 for 56-65 year olds, and M=29.3 for 66 and above), perhaps reflecting the current sensibilities of this retirement-age subgroup. They have attended their share of political meetings and rallies over the years.

The mean scores for usefulness of discussing politics by computer follow the same general pattern as the previous question; however, the scores are slightly lower and there is a steeper, 14-point increase from the 36-45 age group (M=30.1) to the youngest age category of 18-35 year olds (M=44). As one would expect to find with a question about computer use, older respondents find computer discussion about politics less useful than younger respondents, who are perhaps more "wired" and technologically oriented.

In the post-election survey, the analysis revealed significant differences between different age groups for the political importance assigned to two categories of media use: traditional television and newspapers (F=2.42, p<.05), which received the highest overall mean rating (M=4.01), and new media, specifically talk radio and call-in shows (F=3.03, p<.05). None of the remaining dependent variables showed significant differences. The political importance of displaying stickers, posters, buttons, and lawn signs emerged as the least significant item in the post-election data set (F=.05, p<.99). Overall, the mean differences between age groups in the post-election sample were less decisive than in the primary survey, perhaps because a majority of the respondents were younger in the post-election sample (M=36) than in the primary (M=50).

In the primary survey, younger people tended to rate the usefulness of attending political meetings and rallies and discussing politics by computer higher than older respondents. In the post-election data, older and younger age groups assigned roughly equal importance to traditional media (television and newspapers) while respondents aged 56-65 rated the political importance of talk radio and call-in shows the highest of any age category (M=3.58). Though not uniform, these findings still partially support Hypothesis 3, that younger people will rate the usefulness and political importance of mediated modes of participation higher than respondents in older age groups.

Discussion

The context for this paper is claim that media, television in particular, has somehow sapped the nation's store of participatory energy. Putnam is not alone in arguing that TV has "tattered [the] nation's social fabric," as a Washington Post headline declared after his 1995 address to the American Political Science Association (Edsall, 1995). The argument that media exposure has harmful effects on audiences over time and contributes to the erosion of public confidence in institutions can be found in communication studies as well. Postman's (1985) critique of public discourse, Amusing Ourselves to Death, about the negative civic implications of an "entertainment-oriented" media, and Hart's (1994) Seducing America, analyzing how television "charms the modern voter," are just two examples of this genre.

Given the rapidly changing nature of the communication environment and the ways in which political media are actually used and regarded by audiences, the 1996 election presents an opportune moment to reconceptualize the problem of participation. The new media, especially, with their emphasis on audience involvement and public deliberation of pressing issues, not only play an information role crucial to democratic governance, they arguably serve as a bonafide form of civic participation for a growing segment of the electorate. (Concern about the quality of public deliberation via the new media is beyond the scope of this paper, although some (e.g. Franke, 1996; Sakkas, 1993) have begun to assess this dimension as well.) In this view, the new media can be regarded as important participatory venues. Rather than lamenting the decline of conventional civic activities, it is perhaps better, as Schudson (1996) argues, "to conceive the changes we find as a new environment of civic and political activity with altered institutional openings for engagement" (pp. 19-20).

This analysis used two different indicators of civic involvement from two different surveys to find tentative support for the argument that traditional television and new media use encourages civic engagement rather than political alienation.

Any conclusions must remain tentative, however, due to the low response rate to the mail survey, the limitations of cross-sectional surveys in general, and the upwardly biased response to the political interest and voting items in the two samples. These surveys may have appealed to those most interested in politics already, suggesting a possible causal arrow problem: political interest may determine media use rather than media use determining political interest.

Even if traditional television and new media use are just positively associated with interest in politics, and not regarded as predictor variables, however, the social erosion thesis is not supported. Using correlations, Putnam found a strong negative association between television viewing and civic involvement in the GSS data. In this study, national television news viewing and listening to call-in shows are positively correlated with political interest at significant levels, indicating that both the traditional media and the new media are factors contributing to a sense of civic engagement. This runs counter to the notion of television as the mass agent of alienation that some critics would make it out to be. Indeed, a rich literature in political socialization has shown that media use contributes substantially to social integration and political education (see Atkin, 1981; Chaffee, Ward, & Tipton, 1970).

The findings from this study suggest that political audiences regard some mediated modes of civic participation, such as call-in shows and use of the Internet, as useful and valuable to civic life. Call-in shows in particular predict a significant amount of interest in politics, which this analysis has used as a proxy for civic involvement. Consistent with these findings, it seems increasingly plausible to argue that new media use, rather than destroying the nation's store of social capital as Putnam contends television has, might in fact be building a new base of civic activity (at least in the context of the 1996 presidential campaign).

Clearly, more research--and meaningful measures--are needed to isolate the unique contributions of the new media to civic life and move this contentious debate forward.

[1] This study was funded in part by an L. John Martin Research Associates award and Martin Fund Research Grant from the College of Journalism at the University of Maryland, College Park.

[2] Other causes Putnam mentions include pressures of time and money; mobility and suburbanization; the rise of two-career households; the breakdown of the traditional family unit; changes in the structure of the American economy; lingering effects from the movements of the 1960s and 70s; and, the growth of the welfare state (Putnam, 1995c, p. 667).

[3] MSNBC is a 24-hour cable news network and World Wide Web site sponsored by Microsoft and NBC. AllPolitics is a joint venture between CNN and Time magazine. PoliticsNow is an online political news and information service jointly sponsored by the National Journal, ABC News, Washington Post, Los Angeles Times, and Newsweek magazine. Each service came into existence in 1996.

[4] The 1990 U.S. Census STF1-A database on CD-ROM was employed to stratify the original survey sample. The database was broken into block groups, areas roughly equivalent to an eight-square-block neighborhood containing about 2,000 residents. Block groups were divided into two categories: those with more Whites than Blacks, and those with more Blacks than Whites. Each block group was then stratified according to income, yielding a total of four race-class categories: lower income White and Black, and higher income White and Black. The cutoff point used for lower income was median annual household income of $44,660.

Street names and address ranges in each block group were then determined using the U.S. Census "Tiger" mapping database. An equal number of street addresses were then drawn randomly from each race-class category, using a street address-based ("criss-cross") telephone directory. A total of 1,200 surveys were mailed to county residents; of these, about 100 were returned labeled wrong address. More men (n=112, 58 percent) responded than women (n=77, 40 percent), and the sample consists of 132 White (68 percent), 45 Black (23 percent), and 16 unidentified respondents (8 percent). Median household income ranges from $50,000 to $75,000. Much of the sampling frame design for the mail survey borrows from Newhagen's 1992 study of Prince George's County voters (see Newhagen, 1994).

[5] Although this number is low, it falls within the range of "typical" mail survey completion rates of 10 to 40 percent (see Wimmer & Dominick, 1997, p. 152). Due to budget limitations, we were unable to send either a pre-mailer notice, post-mailer reminder, or follow-up survey to boost the response rate.

[6] For the post-election survey, Prince George's County residents were contacted from the phone book using a single directory interval sampling method (see Frey, 1989, pp. 87-88). Students in a communication research methods class at the University of Maryland contacted an average of six residents each during a one-week period from November 7-14, 1996. To ensure randomness and account for unlisted phone numbers in a given exchange, the last two digits of numbers identified for calling were transposed. The post-election sample consists of more women (n=110, 54 percent) than men (n=92, 45 percent), but the proportion of White (n=138, 68 percent), Black (n=45, 22 percent), and other racial groups (n=16, 8 percent) is remarkably similar to the primary survey sample. Median household income ranges from $30,000 to $50,000, slightly less than the primary sample.

[7] Tau-b correlations were used due to the ordinal nature of some of the variables.

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Table 1

Correlation Coefficients for Interest in Politics with Political, Media, and Computer Use Variables

(Primary Survey)

Variable	Coefficient
Ideology	-.02
Party ID	-.01
Strength of Party ID	.30***
Local TV News	.07
Newspaper	.11†
National TV News	.13*
CNN/C-SPAN	.06
Call-In Shows	.23***
Internet Access	.18**
Political Sites	.25***
Send E-Mail	.09

***p<.001 **p<.01 *p<.05 †p<.10

Correlation coefficients are Tau-b.

Table 2

Mean Scores and *t*-Values for Voter and Non-Voter Political Media and Computer Use

(Post-Election Survey)

Media Variable	Mean Scores Voters	 Non-Voters	*t*-Value
Radio	2.93	2.15	1.91†
Newspaper	4.39	3.00	3.70***
Local TV News	4.45	3.84	1.95*
Network News	2.87	1.94	2.72**
TV Talk Shows	1.54	.88	2.11*
CNN/C-SPAN/MS-NBC	1.70	1.63	.21
Political Internet	1.98	1.51	2.63**
Send E-Mail	2.87	2.53	1.36

***$p<.001$ **$p<.01$ *$p<.05$ †$p<.10$

Table 3

Hierarchical Regression of Demographic, Political, Media & Computer Use Variables Against Interest in Politics

Variable	*B*	*Beta*
Income	-.16	-.11
Education	.38**	.25**
Race	.79	.21**
Gender	.25	.07
R^2 Change=.04		
Ideology	-.17	-.10
Party ID	.87***	.31***
Strength of Party ID	.35***	.41***
R^2 Change=.23		
Local TV News	.04	.02
Newspaper	-.01	-.01
National TV News	.16	.13
Call-In Shows	.45***	.36***
CNN/C-SPAN	.14	.10
R^2 Change=.17		
Internet Access	.38**	.25**
Political Sites	.31†	.15†
Send E-Mail	-.24†	-.18†
Understand Computers	.05	.04
R^2 Change=.06		

Total R^2=.50   Adjusted R^2=.43

F=7.20, $p<.0001$
n=132

***p<.001   **p<.01   *p<.05   †p<.10

B=regression coefficient
Beta=standardized regression coefficient

All Countries Not Created Equal to Be News:

World System and International Communication

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All Countries Not Created Equal to Be News:

World System and International Communication

There should be little doubt that since the 1950s international communication research has attracted increasing attention in the field and by the early 1980s the literature in this area of inquiry has reached "almost landslide proportions" (Hur, 1982, p. 531). The past 15 years have further witnessed continuing growth in the study of international and foreign news coverage and flow within and without national borders. After the collapse of communism in Eastern Europe in 1989 and the former Soviet Union in 1991, this persistent interest is reflected not only in professional journalistic practices and concerns over the assumptions and challenge to new ways of reporting of the post-Cold War reality (e.g., Boccardi, 1993; Gwertzman, 1993; Heuvel, 1993; Hoge, 1993), but also in scholarly thinking of the future of international communication and its implications for a global public sphere (e.g., Frederick, McCaw & Vasques, 1994; Mowlana, 1994; Tomlinson, 1994). In addition to research activities at academic conventions (e.g., special panel sessions at AEJMC, ICA and IAMCR), a new journal, *Journal of International Communication*, devoted entirely to this topic was inaugurated in 1994, confirming to some extent Lazarsfeld's prognosis for opening up "new and rather exciting subjects for investigation" (1976, p. 487).

A careful review of the literature would indicate that, unlike earlier case and area research, recent studies have often gone beyond merely describing message and media systems in a particular country or region by focusing more on how and why those systems will interact when they come into contact with one another in an international or larger context. Against the backdrop of the world system theory (Wallerstein, 1974, 1979, 1996), the purpose of this paper is twofold: (1) to propose a new conceptual approach to identifying the determinants that may affect the structure and processes of foreign and international news flow and coverage in a global setting and (2), within this framework, to determine the content (what is covered) and form (how it is covered) of Reuters coverage of a major world event for a better understanding of why countries become news the way they do.

Although not necessarily couched in the world system perspective (see below), the notion of hierarchy among countries in international communication has long been recognized by scholars and researchers in political science, sociology and mass communication. Many consider this structural disparity an important factor in shaping the direction and volume of traffic of news and information from country to country, especially between developed and developing nations. It can be found in such conceptual propositions as concentration of power, wealth and technology (Schramm, 1964), elite nations (Ostgaard, 1965; Galtung & Ruge, 1965; Gans, 1979), international relations and economic development (Hester, 1971, 1973; Frederick, 1993), imperialism or cultural/media imperialism (Boyd-Barrett, 1979; Galtung, 1971; Lee, 1980; Schiller, 1969; Tomlinson, 1991), dependency (Meyer, 1989; Singhal & Sthapitanonda, 1996), or neoimperialism (Meyer, 1989; Madec, 1981). All these ideas share one thing in common: the inequity or imbalance of financial resources and communication technologies in transnational exchange of news and information. The controversy surrounding its subsequent impact on national development and sovereignty has probably been best captured in the debates over the new world information and communication order since the 1970s (e.g., Masmoudi, 1979; Stevenson & Shaw, 1984; Nordenstreng & Schiller, 1993; Richstad & Anderson, 1981; Roach, 1990).

While the debates have been useful in highlighting the deficiencies of quantity and quality of coverage and flow of news and information among countries, it seems, however, to have generated more heat than light as far as theory building in international communication is concerned. Over the past few decades, international communication research as a field of inquiry, whether micro or macro, has compiled substantial data, both quantitative and qualitative, that would allow scholars and researchers to demonstrate with certain degree of confidence what is the state of international communication, but not necessarily why it is so (e.g., Nnaemeka & Richstad, 1979). One is essentially descriptive whereas the other explanatory. In a related study on comparative research, the discrepancy between plethora of the former and poverty of the latter led Chang and his colleagues (1996, p. 20) to suggest that international communication researchers should "search for theories to bridge the gap in the field that has been widened by the continuing accumulation of facts in story telling and the increasing stagnation of thinking in theory building." This paper is a modest attempt to integrate current and existing conceptions and studies on coverage and flow of international and foreign news in a global structure. The point of theoretical and methodological departure is the world system perspective in conjunction with the process of news selection and production. Figure 1 summarizes the conceptual design.

World System and International Communication

At the risk of oversimplification, the world system theory as proposed by Wallerstein (1974, 1979, 1996) is an expansion and extension of the dependency theory that argues that as a result of historical forms of dependence (e.g., colonialism) and interstate economic exploitation, the global system is fundamentally structured in a two-tier concentric market, with the West, developed countries at the center and the rest of the world at the periphery (Santos, 1996; So, 1990). In Wallerstein's conceptualization, this "world system" is the "only one valid unit of analysis" in social science research (Ragin, 1996, p. 78), in which countries are located in three, not two, interactive spheres or zones of economic, political, social, and cultural relations: core, semiperiphery and periphery (see, also, Chase-Dunn & Hall, 1993; Chase-Dunn & Grimes, 1995). The modern world system follows the capitalist/market logic and exhibits discernible communicative and behavioral rules among its constituting parts.

Before the collapse of Communism in the Eastern Europe and former Soviet Union, according to Wallerstein (1996, p. 494), with the U.S. domination and Soviet collusion, "the capitalist world economy was able to expand from its initial European base to incorporate the entire world and eliminate all other historical systems from the globe." As such, countries or nation-states become structurally subsumed under the world system, more specifically the capitalist economy system, or are delimited by it through a complex interdependent network. Any national development or economic interaction among countries outside the core zone is likely to lean toward either the pro-Western camp in pursuit of modernization or the pro-Soviet Union camp in hope of progressive Communism. The difference, however, is a matter of degree, not kind. An individual country's internal or external change is characterized to be a function of the division of labor within the world system itself, with the developmentalist paradigm as a common goal governed by geocultural rules among nations in the semiperipheral and peripheral zones. After the end of Cold War, although the world system structure may remain intact, as Wallerstein argued (1996, p. 495), the domination of the United States in the core may face challenges from Japan and the European Union in their "struggle to obtain quasi-monopolistic control over the new leading industries." The demise of Communist bloc has shifted the balance of power and created new possibility of structural equation in the prevalent world system.

In international communication, how does the world system fit into the theoretical map? Several conceptual and empirical considerations should make it clear that the world system is relevant to the structure and processes of international communication. First, countries are often the unit of analysis or a variable in international communication research. Foreign and international events must originate somewhere, usually in a country, and moves from there to another country, if any, via a path that follows some structural divide, both geopolitical and economic-historical. In the world system, through either historical configuration or current military, economic and political practices or both, countries or nation-states constitute the three strata that exhibit a network pattern, of which the whole is greater than the sum of its parts (Rossem, 1996). Holistically, national structures cannot be effectively understood without taking account of international interaction at a higher level (Chase-Dunn & Hall, 1993; Galtung, 1971). For international communication as a process, the world system perspective therefore provides a macro framework that is useful in charting interactive activities (e.g., the direction and volume of news flow) at a micro level.

Second, a system's operating procedure is determined by its internal structure and external boundary. In an integrated world system, vertical or horizontal communication is required for interaction within and between zones to take place. To maintain the system status quo or to facilitate social change, countries inevitably engage in various forms of exchanges, including goods and raw materials, news and information as well as people (Chase-Dunn & Hall, 1993; Wallerstein, 1974). In international communication, the transmission and consumption involve both tangible and intangible products, with the news and entertainment receiving predominant attention in research because of their symbolic representation of events, objects and issues and creation of social reality for people in a remote setting (e.g., Dennis, Gerbner & Zassoursky, 1991; Wang & Chang, 1996). If what the core nations do often affects how other countries in the semiperipheral and peripheral zones may act or react, as suggested by the world system perspective, then it is reasonable to expect that events and issues that happen in the core countries will be most likely to have repercussions beyond its sphere and to be noted accordingly. Within the world system, international flow and coverage of events can be considered as a form of ripple effect that expands from the center outward, reaching to the edge of its confines.

Third, the demarcation of core to peripheral zones with the number of countries in each category varying from a few to many clearly suggests an unequal partnership among the nations and its inherent negative consequences (e.g., dependency) for those countries farther removed from the central location. It is consistent with existing models in international communication that argue that hierarchical positions or geographical/psychological distance among nations in the world landscape have resulted in disproportional quantity and quality of flow and coverage of news for developing and underdeveloped countries (e.g., Gerbner & Marvanyi, 1977; Gonzenbach, Arant & Stevenson, 1992; Weaver & Wilhoit, 1981; Wilhoit & Weaver, 1983). In a network analysis based on an indirect measurement of news content (international trade of newspapers and periodicals), Kim and Barnett (1996, p. 344) demonstrated "the inequality in international news flow between the core and the periphery. The Western industrialized countries are at the center, dominating international news flow. Most African, Asian, Latin American, and Oceanian countries are at the periphery." Their data offered some clear evidence regarding the consequences of the disparity of countries in the world social structure.

Given the above discussion and empirical findings, as outlined in Figure 1, in international communication the first filter of determinants of news flow and coverage can be conceptualized as a country's location or position in the world system. If an event or issue originates from a country that is situated in the core, chances are high that it will move across national borders and thus be picked up as news in other countries, particularly those in the semiperiphery and periphery. The emphasis here is the higher likelihood of its flow and coverage, not in any absolute sense. For international communication as a product, it means that the world system is manifested in the content of foreign and international news that tends to focus on the core countries at the expense of non-core nations.

While the world system appears to be able to explain the flow and coverage of core countries in international communication, it does not automatically suggest non-coverage or absence of flow for countries located in the semiperiphery or periphery. For one thing, it cannot satisfactorily account for the fact that countries in the non-core strata, mostly those developing and less developed nations in Africa, Asia, Middle East, and Latin America, have been covered from time to time, albeit largely in a negative fashion of human and natural disasters, by the news media in the core countries. The literature has well documented that coups, earthquakes, civil unrest and other social disturbances are often the staple of news in the West about the rest. Apparently, other filters in international communication are at work beyond a country's location in the world system itself. Figure 1 proposes three more filters involving pairs of considerations that are derived from previous studies on the structure of international and foreign news: event vs. context oriented, internal attributes vs. international interaction, and high vs. low threshold of news values.

In a discriminant analysis of determinants of international news coverage in the U.S. media, Chang, Shoemaker and Brendlinger (1987) categorized this line of research into event- and context-oriented approaches. In one approach, internal factors may determine whether an event will be covered, regardless of how the event may play out in the larger, external context. Attributes or characteristics inherent in the event itself such as timeliness, unexpectedness, human interest or concerns, continuity or deviance make it stand out in the clutter of daily events that may pass through the newsroom (e.g., Shoemaker, Chang & Brendlinger, 1986). This is essentially a conventional view of newsworthiness and is considered as part of the second filter under event-oriented approach in Figure 1. In the other approach, external or contextual factors may carry more weight in the journalistic news decision making. These factors include, among other things, political affiliation, economic relations, relevance, geographical proximity, and cultural similarity. To a great extent, they imply, explicitly or implicitly, some kind of interaction between countries. Defined broadly, international interaction as a filter consideration in Figure 1 includes interactive connections between countries that are made possible through the interplay of history, language, geopolitics, trade and business, people, technology, and war over time and space.

Considering all three filters together, the model suggests that in international communication a country located in the core zone of the world system is more likely to occupy the centrality in the communication network both as a sender and as a receiver (e.g., Kim & Barnett, 1996). The two roles are related and can be looked at as two sides of the same coin. As a source, it is apparent that a core country's news tends to have a higher chance of circulation and coverage among other countries. As a receiver, although a core country's centrality may be shown by the amount of international newspaper and periodicals trade it receives, as measured by Kim & Barnett (1996), what is more conceptually significant and methodologically relevant is the number of foreign correspondents it hosts. Take the United States for example. More journalists from around the world are permanently stationed in Washington than vice versa. It should be true in other core countries. This fact certainly contributes to a core country's centrality as a source in that it commands attention both at home and abroad in the process of international communication.

The situation for countries in the semiperiphery and periphery is different. For most of them, foreign correspondents as a form of international newsgathering system are generally absent. Since they don't take up any central position as either a sender or a receiver in international communication, news from and about those countries will have to undergo more screening tests before it may see the light of the day. Whether it is event or context oriented, the threshold of news value must be high for it to travel from one country to another and to be covered one way or the other (e.g., Ostgaard, 1965; Galtung & Ruge, 1965; Rosengren, 1970, 1974, 1977). This is the fourth filter that a country will need to go through to become news. Two classes of events are prime candidates in this regard. First, any dramatic or tragic event such as mass starvation, killings or flooding is likely to score high on the news value test.

Second, consistent with the world system theory, a high interaction between non-core countries and core nations increases the probability of news flow and coverage for the former. Notwithstanding, in contrast to the core countries, because of the added filters in the news selection or gatekeeping, chances are generally lower for non-core countries to draw attention as an object of foreign and international news flow and coverage.

As part of a larger comparative project involving six countries and several print and broadcast media, this paper presents content analysis data that attempt to determine the content and form of international communication within the model proposed in Figure 1. Using the first World Trade Organization (WTO) Ministerial Conference in Singapore during December 9-13, 1996 as a case and focusing on Reuters as a major news agency, this paper contends that in international communication all countries are not created equal to be news. Specifically, it seeks to test the following hypotheses:

H1: Of all the countries that were present at the WTO conference, the core nations were more likely to be covered than non-core countries.

H2: The pattern of network coverage of WTO conference would center around the core countries.

H3: When semiperipheral and peripheral countries were covered, they would largely be reported through their interaction with the core nations.

WTO Conference and Reuters

The first WTO ministerial conference in Singapore was a culmination of many previous worldwide meetings that started at the end of the 1986-93 Uruguay Round of international trade negotiations. The final agreement was signed by trade ministers around the world in April 1994. Launched on January 1, 1995, WTO replaced the old General Agreement on Tariffs and Trade (GATT), which had served as a world trade body since 1948.

Its supreme authority is the Ministerial Conference, to be held every two years (Reuters, December 9, 1996). The first conference was held December 9-13, 1996 and a total of 128 WTO members, 34 observer governments and 49 international organizations attended the meeting. Its historical importance is exemplified by the fact that more than 1,000 journalists came from almost every country to report on the inaugural WTO ministerial trade conference.

Although a single world event, the selection of the WTO conference and Reuters coverage for analysis is significant for several reasons. First, conceptually speaking, the focus of the WTO conference--ground rules of world trade --provides an observable link to the central aspect of the world system perspective: the interrelationship of world market or capitalism system. If the core nation-states indeed dominate the world system, this world trade conference as a site should to some extent reflect the structural arrangement. Second, methodologically, the WTO conference represents a specific event that would allow for a closer comparison of intra- and extra-media data, which is a more powerful way of analysis in international communication research (Rosengren, 1970). For every country involved, the event itself should be fixed, but its context may vary from country to country, depending on how each country interacts with one another. This permits a better investigation of the earlier proposition that in international communication semiperipheral and peripheral countries would become more visible when they come into interactive contact with the core nations.

Third, practically, nearly all of the world's countries are represented at the conference, making access to each country's views and statements on the world trade issues readily available to the news media at large, including Reuters. In addition to equal time for each country to speak (five-minute speech at the official meeting), there were various briefings, news conferences, groups meetings, and bilateral negotiations that could be held daily by any countries that cared to do so. From a journalistic point of view, it is therefore difficult to argue that such democratic rules of the game still keep certain countries inaccessible because of their lack of press freedom or control over the free flow of information within their territorial boundary, as it normally would when foreign journalists have to apply for permission before they can enter a given country.

Fourth, one of the four major international news agencies, the London-based Reuters has subscribers in 161 countries through 362,000 terminals. Its news reaches worldwide media. There is no reason to believe that its wire services should be geared toward any particular country or region, including its own home country. Nonetheless, it is unrealistic, if not impossible, to expect Reuters and for that matter any other media organizations to cover every possible country on the face of earth in their limited news time and space. It certainly can be argued ontologically and epistemologically that the news can never do justice to the reality itself. Given that countries were treated equally at the conference, any deviation from the expected value in the news would indicate the existence of journalistic paradigms. In that respect, this paper argues that within the world system perspective all countries are not created equal to be news in international communication. Regardless of the criteria, selective reporting is thus a norm, not an exception in the world of news profession. A logical question to ask then is, What factors may help to reduce the uncertainty in the process of news selection? By focusing on a single news agency, this case study approach (Yin, 1994) is appropriate in determining in a greater detail not only *what*, but also *how* and *why* a particular phenomenon occurs in the first place. This is especially true when data independent of media content exist for comparison purpose.

Method

255 Two sets of data were collected for the present content analysis: official statements given by each country at the WTO meeting and Reuters daily news dispatches during the first four days of conference (December 9-12, 1996) from the host country's WTO and Reuters

web sites on the Internet. Additional materials were gathered from the meeting schedule and the Geneva-based WTO web site to establish a baseline of "what happened" at the conference. There were no speeches from individual countries on the last day of conference (December 13) that featured only concluding remarks by the host country and a joint declaration. Reuters stories released on this day were therefore not considered. The rationale is that stories written before the conference reached the final agreement should be more sensitive to the pros and cons of the participants toward the issues involved in the meeting. In theory, when there was still room for maneuvering and position juggling, thus presenting opportunities for policy and opinion expressions among countries, it should be unlikely for Reuters coverage to stamp out a closure in practice unless factors other than news availability and source accessibility were at work. In fact, when the last-day stories were added, the patterns remain unchanged.

In this paper, according to common classifications in previous studies (Kim & Barnett, 1996; Rossem, 1996; Wallerstein, 1996), the core countries are defined to include the United States, European Union (Western European countries, especially United Kingdom, Germany and France), Japan, and Canada. The semiperipheral countries consist of other lesser Western European countries (e.g., Sweden and Switzerland) and relatively advanced economies such as South Korea, Singapore and Malaysia in Asia, Argentina and Mexico in Latin America, and Egypt in Africa. The peripheral countries refer to most of the world's developing and less developed nation-states, including former Soviet bloc countries. China and Russia are considered to be semiperipheral.

For each story, based on multiple coding, every country was counted only once irrespective of how often the country was mentioned. In other words, each country was given an equal weight in the news, as it was at the WTO conference. This conservative approach assumed that all countries had the same chance of being represented in international communication, hence eliminating potential biases or artifacts due to the liberal coding design that often favored both primary/dominant and secondary countries. Throughout the four days, identical stories were excluded. Updated stories with additional information gathered on different days were considered as separate news. The proportion of coding reliability coefficient (Holsti, 1969) of a random sample between two independent coders was near unity: 0.97.

Results

During the four-day WTO conference, a total of 108 WTO member states and 16 observer countries spoke at the meetings. Reuters released 116 stories, with an average of 29 stories per day. Among the WTO members, 40.7 percent of the countries received at least some coverage while more than half of them were never referred to in the Reuters dispatches. For non-WTO nations, only China, Russia and Taiwan were covered on the day they addressed the conference. No other countries, except for Saudi Arabia and Vietnam, were ever mentioned. Table 1 provides a detailed comparison between "what happened" at the meetings and Reuters coverage of countries from day 1 through day 4.

As is evident in Table 1, when the WTO conference opened, the parameter was set for what was likely to come in Reuters coverage. Although the conference procedure gave each country an equal platform to present its statement on the world trade system or to make its plea if it was not already a member, Reuters provided not only an apparently unequal news space for a few selective countries, but also offered views from countries on the sideline. The first day witnessed 50 percent of the countries that spoke receiving disparate mention in the Reuters news. Most of these countries were located in either the core or semiperipheral zone of the world system. The United States (86.7%) and European Union (63.3%) dominated the stories, followed by Singapore (36.7%), Canada (36.6%), United Kingdom (26.7%), Australia

(23.3%), and Germany (16.7%). Japan would not speak until the next day, but its centrality in the world trade body could be clearly observed in the news (43.3%). China (16.7%) also made its news presence when many peripheral countries that delivered their official views on the globalization of world economy and international trade were side-stepped by Reuters. In the eyes of Reuters, the United States, European Union, Japan, Singapore, and Canada were the story of the day. As will be shown later, Singapore's relatively high appearance in the news was mostly a function of its interactions with the U.S. and Japan, not necessarily due to its being host of the first WTO ministerial conference.

The news pattern became more structured when the conference entered the second day. Twenty-six countries from Bolivia to Zimbabwe, including Russia, spoke at the conference, of which only five countries (19.2%) received any coverage in Reuters. Unlike the first day meeting, except for a few cases, almost all these countries were located in the peripheral zone of the world system. Of the 26 countries that took the podium one by one, Japan stood out and Reuters listened, covering it extensively (64.5%). For those countries on the side, the United States (87.1%) and European Union (77.4%) continued to outshine other nations in the Reuters news, with Canada (58.1%), Malaysia (41.9%), China (29.0%), and Indonesia (22.6%) trailing at a distance. A few countries that made their debut, but did not appear in the news on the first day were mentioned barely the next day. The clear configuration is that the four core countries in the world system shared the Reuters spotlight, with some major semiperipheral nations standing in the shadow.

On the third day after the key players had spoken, the stage for the WTO conference and the Reuters news attention obviously shifted from the official schedule to sideline activities that tended to highlight the core countries. The two sessions for 24 member states and 11 observers generated little news for Reuters, except for Malaysia (28.6%) taking the lead among those that garnered some coverage. About 15 percent of the day's speakers (five countries) made it to the news, with the rest of them nowhere to be found. Of the 21 stories issued by Reuters, at least two-thirds of them involved the United States (85.7%) and European Union (66.7%), while more than half concerned Canada (57.1%) and Japan (57.1%). The persistent lineup demonstrated that in the process of news, most countries, particularly those in the semiperipheral and peripheral zones of the world system were simply insignificant, if not irrelevant, at the WTO conference. They did not seem to hold strategic positions that would give them some news leverage in international communication.

By the last day when almost all ministerial speakers of the 30 WTO members and four observers came from the periphery, apart from semiperipheral Switzerland (17.6%) and six other countries, none managed to attract Reuters interests. From Bahrain to Zambia, twenty-seven nations addressed the conference, Reuters did not hear their voices, however. While these countries were hardly out of sight at the meeting, they definitely were out of the Reuters news mind. To the extent that news appearance was concerned, Reuters had lowered the curtain for most of the none-core countries as the 4-day plenary sessions drew to an end. Again, the core nations--the United States (94.1%), European Union (85.3%), Canada (44.1%), and Japan (38.2%)--rounded up a disproportionate number of the 34 stories released by Reuters. What is significant is that countries that spoke, but failed to make news on the last day were almost outnumbered by nations that did not speak, yet somehow ended up in the Reuters dispatches. Apparently, speaking at the conference alone was not enough for a country's views to come across as news. It may take the country itself and, by default, its world position to become a newsmaker.

Such a structural inequity in news making can be best seen when the overall picture during the 4-day WTO conference was examined. As reported in Table 2, of the 48 countries covered more or less by Reuters, 13 countries appeared daily throughout its dispatches: United States, European Union, Japan, Canada, Malaysia, Singapore, Australia, Indonesia, China, France, India, South Korea, and Brazil, in that order. All other countries scattered over the time span. Among the 13 nations, a hierarchical pattern emerges, setting them apart along the world system divide. In the Reuters news, the top four countries were located in the core zone, while the second tier nations could be found in the semiperipheral, except for France that certainly was subsumed under European Union. Findings in both Table 1 and Table 2 clearly support the first hypothesis that core nations of the world system were more likely to be covered than non-core countries at the WTO conference. A closer look at the comparison of Reuters coverage of countries among the three strata of the world system should be more illustrative.

Table 3 examines the number of countries mentioned in the Reuters news and the percent of stories devoted to countries in each of the world system zones. Over the 4-day period, Reuters delivered only nine stories (7.8% of the total) that dwelled exclusively on one country, most of which were about core nations. Nine out of 10 stories (92.2%) concerned two countries or more. Of these stories, almost all of them would include the countries in the center no matter how many countries might be involved. When up to four countries were reported, the semiperipheral nations appeared, on average, in fewer than 50% of the stories. If five or more countries were identified in the news, however, the semiperipheral began to show up as frequently as those in the core, suggesting an increased interaction between the two zones. For those countries in the periphery, their chances of news appearance, whether individual or collective, tended to be slim. Their best bet is when the number of countries in the news begins to grow and members in the other two zones start to reach out. Table 3 lends further support to the first hypothesis.

Against the backdrop of the world system perspective, the main thrust of this paper is that all countries are not created equal to be news in international communication. This proposition is tested using extra-media standard (WTO membership and WTO conference speaker list) and intra-media data (Reuters coverage of countries). Table 4 presents the comparison between these two sets of data across five world regions: Africa, Americas, Asia, Europe, and the Pacific. It is obvious that Africa (29.7%) had more countries in the WTO than Americas (25.8%), Europe (21.9%), and Asia (18.8%), respectively. Roughly speaking, not counting the Pacific region, countries in these four regions were evenly represented at the conference, with nearly the same number of ministers or representatives from each region.

In the Reuters news, however, the picture changed and was undoubtedly out of considerable proportion. Its deviation from "what happened" was particularly notable in that the entire Africa, with almost a quarter of speakers (23.1%) at the WTO conference, not to mention its nearly one third of WTO members, fared poorly in the news (9.1%) in contrast to the Pacific region that had less than five percent of countries in either category. As a newsmaker in international communication, Australia alone carried greater clout than all the African countries combined. The loss of African nations' news visibility, of course, represents gains by other countries, especially those in Europe (31.8%) and Asia (27.3%). Compared to the two extra-media yardsticks, one in ten African countries (10.8%-15.4%) had a chance to be covered by Reuters, while four out of ten nations in every other region (36.4%-52.2%) could be expected to do so. North American countries never missed the news limelight. Chances for countries to become news across national borders are indeed unequal and may often depend on where a country finds itself in the larger international setting.

The data so far do not tell the complete story regarding how countries may be linked in the Reuters news within and between the five world regions or the three zones of the world system. In this paper, countries that were mentioned in the same story was counted once as a pair regardless of how frequently or conspicuously the countries were identified. The assumption is that when two countries appear simultaneously in the news, it implies some types of interactive activity between them. First, as a news source, a country may by design engage another country in its deliberation of words or deeds. This is most likely to occur in the areas of foreign policy or international relations, where conflict of interests or cooperation will inevitably bring two countries together in the news, if not in reality. Second, even in the absence of another country in its own action or reaction, a country's position may turn out to be significant when it is juxtaposed in the news with that of the other. Such journalistic practices mean that countries may be interacting with one another without necessarily going through any protocol or protrusion against others. Either way, a form of interaction or network is thus established.

Figure 2 details the key couplings of WTO countries that were reported by Reuters in at least three stories (see Table 2). The line and its frequency indicate how each pair of countries in the same region was co-covered in the news during the 4-day conference. It should be evident that the four core countries--United States, European Union, Japan, and Canada--formed a dominating network among the 28 nations. Each of these countries also occupied a central position within its own sphere of influence, connecting many semiperipheral nations to the core in the news network. For example, the United States and Canada each functioned as a link to five Latin American countries (Mexico, Argentina, Uruguay, Brazil, and Jamaica) in the Reuters stories. The European Union stood at the forefront for six European countries (Germany, Switzerland, Norway, Poland, Britain, and France) and two African countries (Egypt and South Africa), serving as their news gateway to the core of the world system. Japan could be found in a complex news web with 10 other Asian nations. The emerging ASEAN countries as a power bloc in Asia probably explains the formation of such a network.

As far as international communication is concerned, the above configuration seems to underline the structural imbalance that could be expected in news coverage of core, semiperipheral and peripheral countries. Within the world system perspective, the finding supports the second hypothesis that the network of coverage of WTO countries would center around the core nations. Moreover, the striking similarity between this study's pattern of news coverage and that of Kim & Barnett's news flow (1996) in the global setting suggests the validity of the world system perspective as a conceptual framework in the study of determinants in international communication (see the model in Figure 1). To some extent, it also confirmed Tunstall's (1992) observation that following the United States, Europe has become a world news leader. In that regard, with various linkages to other Asian countries, Japan may not be far behind as a key newsmaker.

The data in Table 3 and the pattern in Figure 2 show certain degree of correlation between appearance of core and semiperipheral countries in the Reuters stories. They do not, however, adequately answer how and why these countries came to be included in the same stories. Part of the answers can be found in Table 5 that closely examines the matrix of network of countries covered by Reuters. Of the 107 stories involving at least two countries, the predominant form of network was that of core-core interaction (88.8%), followed by core-semiperiphery (67.3%) and semiperiphery-semiperiphery (45.8%). For the peripheral countries, the within- or between-zone linkage in the news was nearly invisible. In other words, throughout the 4-day WTO conference, Reuters dispatches underscored the activities of core countries at the expense of other nations. When Semiperipheral and peripheral countries did appear in the news, they were more likely to be seen in the company of core nations than those from the same zone. This partly supports the third hypothesis that these countries would largely be reported through their interaction with the core nations. The question is what kind of interaction. A detailed comparison between the official positions of all countries at the conference and their coverage or non-coverage in the Reuters news should to some extent reveal the interactive mechanism that might be present.

At the WTO conference, in addition to routine trade issues that needed to be wrapped up by member states, two other issues seemed to stir concerns or interests among various groups of countries, especially those in the center: the nexus of trade and core labor standards and the Information Technology Agreement. While the latter was commercial, the former was highly political. Each had different agenda and implications for the WTO countries. How countries lined up on these two issues and whether they landed in the Reuters dispatches may serve as a gauge of what makes news for a given country. Table 6 reports the extra-media data gathered from official statements presented by each country at the meeting.

The four core or so-called Quad countries--the United States, European Union, Japan, and Canada--were pushing for either the linkage between world trade and basic labor standards or the Information Technology Agreement or both at the WTO conference. Although there was dissent or disinterest among those nations in the core zone of the world system, it was clear that they tended to act in unison. Chances were high for them to be covered by Reuters. The fact that the peripheral countries appeared to be irrelevant, if not insignificant, in international communication can be easily seen in Table 6. Regardless of whether they supported or resisted the nexus between world trade and labor standards, their views mostly were ignored in the Reuters stories. To be more specific, when they opposed the idea on the one hand, most of them (82.1%) did not make it to the Reuters news; should they fail to address the issue on the other hand, much more of them (85.7%) remained invisible in the news. It was a catch-22 situation for a country to be on the periphery.

As noted earlier, semiperipheral countries had a better chance to be in the news when they interacted with the core nations one way or another. Data in Table 6 bear this point out. On the trade and labor standards issue, of the 28 semiperipheral countries present at the conference, a country had a higher chance of being covered by Reuters if it came out against the connection, arguing instead that the issue should be dealt with by the International Labor

Organization, not by the WTO. Among the 22 countries receiving some coverage in the Reuters news, almost 60 percent of them rejected the idea favored by the core nations. As it turned out, the stronger their rhetoric against the proposal, the higher their exposure in the news. For example, the Malaysian delegate categorically argued in the official statement against linking the two: "Discussion and debate on the issue of labor standards have proven to be a divisive factor. For Malaysia, we reject any attempt to link labor standards and other social clauses to trade and trade action, and we also reject any move to discuss and deliberate labor standards and other social clauses in the WTO" (December 11, 1996, emphasis in original). It should be no coincident that Malaysia was the leading semiperipheral country reported in the Reuters news (see Table 2). Findings in Table 6 provide additional evidence supporting hypothesis 3.

Conclusions and Discussion

Although this paper is essentially a case study of one world event reported by a single news agency, the choice of the specific event within a larger context is theoretically significant and methodologically sound. Theoretically, international communication among the 162 countries represented at the inaugural WTO conference is bound to occur. The setting itself provides an ideal site to determine how that interaction may take place. It also weakens a journalistic presumption that news and information on most of the world's countries, especially those in the developing and less developed regions, are often hampered by lack of access to the sources. Methodologically, the use of both extra- and intra-media data makes it possible to closely examine the content and form of international and foreign news flow and coverage. The extra-media data can be used to establish a baseline for "what really happened" (Rosengren, 1974) and its comparison with the pictures in the news should be more powerful in hypothesis testing (Rosengren, 1970). While the present study provides partial test of the model proposed in Figure 1, several conclusions can be drawn.

First, in conjunction with findings from previous international news flow research, the network patterns of news coverage of countries by Reuters exhibited in the data suggest that there is validity in the integration of the world system as a conceptual approach to the study of determinants of international news flow and coverage. Such an overall framework posits that the structural disparity among countries in the world system tends to be, among other filters, the foremost threshold through which a country has to pass before it will become news. Beyond this point, whether a country will show up as news in another country takes two uneven routes: one is straight; the other is often crooked as a function of a number of internal and external factors.

The literature in the field since the 1950s has assembled voluminous studies that document quantitative and qualitative differences in the amount, content and direction of mass communication across national borders. The findings in this paper clearly indicate that all countries are indeed not created equal to be news in the structure and processes of international communication. The flow and coverage of international events may not recognize national boundaries in the age of information technology. However, they may fail to originate in the first place or could be stopped in the process in so far as the locality of the country in the world system or the centrality of events in the journalistic paradigm remains relatively farther removed from the point of reference.

Second, for the few core nations in the world system, their chances of being in the news are much higher than those located in the semiperiphery and periphery. In contrast, the news appearances of most semiperipheral countries are more likely to be determined by the company they keep, usually the core nations, whereas the peripheral nations may have to leave it to chance (e.g., natural disasters). When the international communication network involves just a few countries, the peripheral ones are largely out of the loop. What they may do or say does not carry much weight to put them in the news. Their best opportunity seems to be in cases where the international network expands to include a bigger crowd of countries, in which they may be in a position to share some spotlight with the core and semiperipheral nations in the stories. In other words, peripheral countries are dependent on nations in the other two zones to give them a lift or ride in international marketplace of ideas. This dependency means that in international communication as both a process and a product, peripheral countries will frequently be sidelined when there is little room for inclusion. It is a game of poor country out. As far as the world system is concerned, no news may not be good news for the peripheral countries that are being left out in the process of mass communication across national borders. It means that they are structurally more outlying in the world system and journalistically less essential in news reporting.

Third, if the semiperipheral countries resist the domination of core countries in the global setting as they did at the WTO conference, they may be able to carve out a spot in international communication, generally not because of their ability to make news in their own right, but by virtue of the conflict between the powers that be and the emerging power centers. It is a form of international interaction that shapes and is shaped by the shift of power balance in the world structure. When the status quo is seriously threatened, as Hallin (1986) argued, it creates a sphere of legitimate controversy, providing a window of opportunity for the challenger to make news. In a sense, a country is more newsworthy in international communication when it stands individually or collectively against a major player in the game. This appears to be the case for many semiperipheral WTO countries that were covered by Reuters as a power bloc (e.g., ASEAN).

Fourth, a hierarchy exists in Reuters coverage of the three strata of the world system. Within each zone, countries do not necessarily enjoy similar treatment in the news. Some countries seem to be able to command more news attention than other nations in their own league. If this within-zone differential pattern is any indication of the structural inequity among the world's nations, then the between-zone imbalance further suggests a fundamental equation of inherent disequilibrium of the world structure that has profound implications, not only in news, but also in reality, for all the countries involved.

It is probably telling when the representative of Fiji, a tiny South Pacific country with a population of three quarters of a million, ventured his frustration over the micro-macro world economic relationship at the WTO conference this way: "We are told in a forum such as this, that we are all equal and we have a level playing field. However, when I consider my inability to influence opinion, to mobilize razor-sharp executives who lobby convincingly on our behalf, to stage-manage events as they unfold, and my lack of authority to influence the debate, then I realize that there is no level playing field in trade, and some are indeed more equal than others" (official statement, December 10, 1996). To the extent that international communication is a manifestation of the world system arrangement, findings in this paper obviously support his observation. Notwithstanding, more research needs to be done to determine whether the same pattern repeats itself in different social units. Using data collected from six countries during the same period, a larger comparative project will look closely into the structure of this playing field in the world landscape and its configuration in the news.

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Figure 1: Determinants of Foreign and International News Flow and Coverage

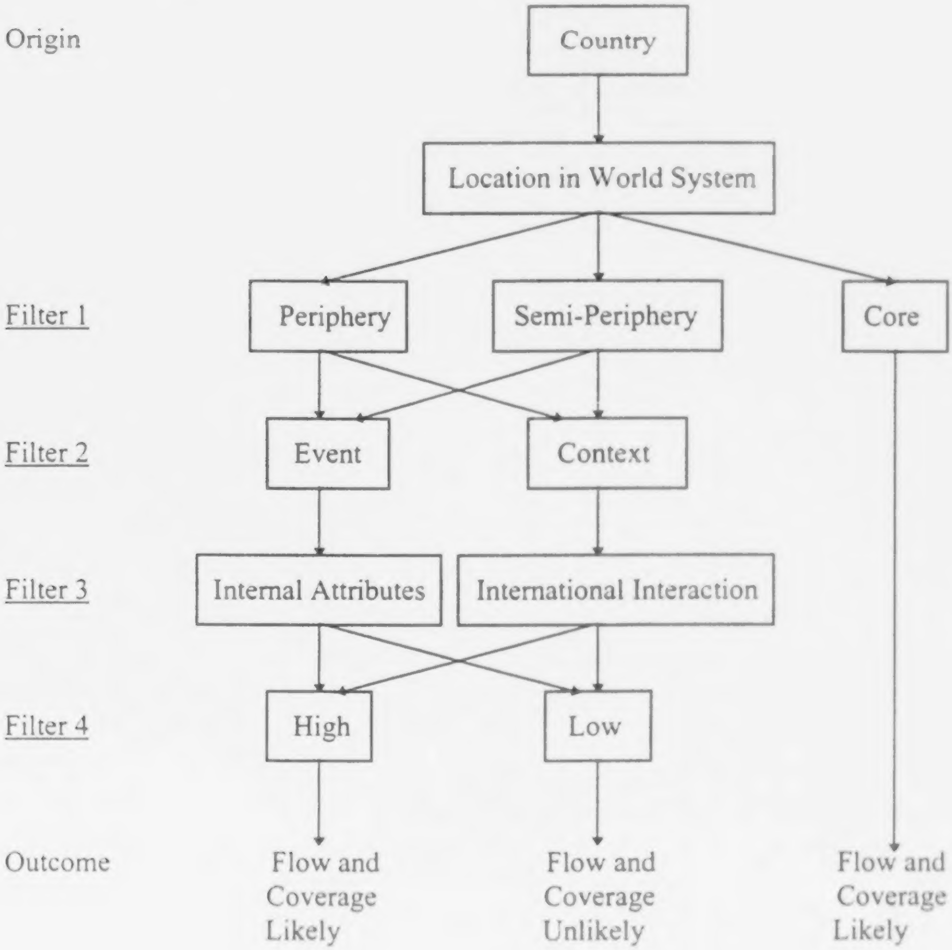

Table 1: Comparison Between What Happened and Reuters Coverage at WTO Meeting

WTO Meeting, Day 1	Reuters, Day 1		
Country Spoken*	Percent of Mention#	Other Country Mentioned+	
Argentina	-	Japan	43.3%
Australia	23.3%	China	16.7
Austria	-	Malaysia	13.3
Bangladesh	-	Brunei	6.7
Brazil	3.3	Philippines	6.7
Canada	36.6	Russia	6.7
Colombia	-	Vietnam	6.7
Cuba	-	Chile	3.3
Denmark	-	Netherlands	3.3
Dominican Republic	-	Saudi Arabia	3.3
European Union	63.3	South Korea	3.3
Finland	-	Taiwan	3.3
France	13.3		
Germany	16.7		
Hong Kong	3.3		
India	10.0		
Indonesia	13.3		
Ireland	-		
Italy	3.3		
Mexico	3.3		
New Zealand	-		
Norway	-		
Pakistan	-		
Portugal	-		
Singapore	36.7		
Thailand	10.0		
Turkey	-		
United Kingdom	26.7		
United States	86.7		
Uruguay	-		
n = 30	n = 30		

* According to the conference procedure, statement by each country/entity speaker was limited to 5 minutes, except for the inaugural speech by Singapore. Longer statements were circulated as documents. Entries include WTO members.

Multiple coding. Percentages do not add up to 100. Each country in the story was counted only once. Singapore was coded only when it appeared as a country in the news, not as the location of WTO meeting (e.g., Singapore meeting). N represents total number of stories.

+ Organizations or groups were excluded.

Table 1: Comparison Between What Happened and Reuters Coverage at WTO Meeting (continued)

WTO Meeting, Day 2	Reuters, Day 2		
Country Spoken*	Percent of Mention#	Other Country Mentioned+	
Bolivia	-	United States	87.1%
Chile	-	European Union	77.4
Czech Republic	-	Canada	58.1
El Salvador	-	Malaysia	41.9
Fiji	-	China	29.0
Ghana	-	Indonesia	22.6
Guyana	-	Singapore	19.4
Hungary	-	Australia	12.9
Iceland	-	India	12.9
Jamaica	-	Russia	12.9
Japan	64.5%	South Korea	12.9
Kuwait	-	France	9.7
Liechtenstein	-	Brazil	6.5
Luxembourg	-	Hong Kong	6.5
Mauritius	-	Norway	6.5
Netherlands	-	Thailand	6.5
Nicaragua	-	Argentina	3.2
Philippines	9.7	Brunei	3.2
Sierra Leone	-	Costa Rica	3.2
Soloman Islands	-	Mexico	3.2
Sweden	3.2	Pakistan	3.2
Tanzania	-	Taiwan	3.2
Tunisia	-	Uruguay	3.2
United Arab Emirates	-	Vietnam	3.2
Zimbabwe	3.2		
n = 25	n = 31		

* According to the conference procedure, statement by each country/entity speaker was limited to 5 minutes. Longer statements were circulated as documents.

Multiple coding. Percentages do not add up to 100. Each country in the story was counted only once. Singapore was coded only when it appeared as a country in the news, not as the location of WTO meeting (e.g., Singapore meeting). N represents total number of stories.

+ Organizations or groups were excluded. Underlined country spoke as an observer.

Table 1: Comparison Between What Happened and Reuters Coverage at WTO Meeting (continued)

WTO Meeting, Day 3	Reuters, Day 3		
Country Spoken*	Percent of Mention#	Other Country Mentioned+	
Belgium	-	United States	85.7%
Botswana	-	European Union	66.7
Brunei	-	Canada	57.1
Costa Rica	-	Japan	57.1
Ecuador	-	France	23.8
Egypt	-	Norway	19.0
Gambia	-	Indonesia	14.3
Greece	-	Argentina	9.5
Israel	-	India	9.5
Lesotho	-	Germany	9.5
Macau	-	United Kingdom	9.5
Malaysia	28.6%	Australia	4.8
Malta	-	Brazil	4.8
Morocco	-	China	4.8
Paraguay	4.8	Czech Republic	4.8
Romania	-	Hong Kong	4.8
Singapore	14.3	New Zealand	4.8
South Korea	4.8	Russia	4.8
Spain	4.8	Tanzania	4.8
Sri Lanka	-	Uruguay	4.8
Suriname	-		
Togo	-		
Trinidad and Tobago	-		
Uganda	-		
n = 24	n = 21		

* According to the conference procedure, statement by each country/entity speaker was limited to 5 minutes. Longer statements were circulated as documents.

# Multiple coding. Percentages do not add up to 100. Each country in the story was counted only once. Singapore was coded only when it appeared as a country in the news, not as the location of WTO meeting (e.g., Singapore meeting). N represents total number of stories.

+ Organizations or groups were excluded.

Table 1: Comparison Between What Happened and Reuters Coverage at WTO Meeting (continued)

WTO Meeting, Day 4	Reuters, Day 4		
Country Spoken*	Percent of Mention#	Other Country Mentioned+	
Bahrain	-	United States	94.1%
Bulgaria	-	European Union	85.3
Burundi	-	Canada	44.1
Cameroon	-	Japan	38.2
Cote d'Ivoire	-	Australia	20.6
Cyprus	-	South Korea	20.6
Dominica	-	India	17.6
Guatemala	-	Singapore	17.6
Honduras	-	Hong Kong	14.7
Jordan	-	Indonesia	11.8
Kenya	-	Malaysia	11.8
Madagascar	-	Norway	11.8
Malawi	-	Pakistan	11.8
Maldives	-	Egypt	8.8
Mozambique	-	France	8.8
Myanmar	-	Jamaica	8.8
Namibia	-	Philippines	8.8
Nigeria	-	Argentina	5.9
Papua New Guinea	-	Barbados	5.9
Peru	-	Brazil	5.9
Poland	8.8%	Germany	5.9
Saint Kitts and Nevis	-	Iceland	5.9
Saint Lucia	-	Mexico	5.9
Senegal	-	Taiwan	5.9
Slovak Republic	2.9	Thailand	5.9
Slovenia	-	Turkey	5.9
South Africa	8.8	Uruguay	5.9
Switzerland	17.6	China	2.9
Venezuela	2.9	Netherlands	2.9
Zambia	-		
n = 30	n = 34		

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* According to the conference procedure, statement by each country/entity speaker was limited to 5 minutes. Longer statements were circulated as documents.

# Multiple coding. Percentages do not add up to 100. Each country in the story was counted only once. Singapore was coded only when it appeared as a country in the news, not as the location of WTO meeting (e.g., Singapore meeting). N represents total number of stories.

+ Organizations or groups were excluded. Underlined country spoke as an observer.

Table 2: Countries Covered by Reuters at WTO Meeting

Country+	Reuters*
United States	88.8%
European Union	74.1
Japan	50.0
Canada	48.3
Malaysia	23.3
Singapore	21.6
Australia	16.4
Indonesia	15.5
China^	13.8 (non-WTO member)
France	12.9
India	12.9
South Korea	11.2
Norway	8.6
United Kingdom	8.6
Germany	7.8
Hong Kong	6.9
Philippines	6.9
Russia^	6.0
Thailand	6.0
Brazil	5.2
Switzerland	5.2
Argentina	4.3
Pakistan	4.3
Mexico	3.4
Taiwan^	3.4
Uruguay	3.4
Brunei	2.6
Egypt	2.6
Jamaica	2.6
Poland	2.6
South Africa	2.6
Vietnam^	2.6
16 WTO members	0.9-1.7
64 WTO members	-
n = 108	n = 116

+ Entries include countries spoken at WTO meeting from Day 1 to Day 4 (December 9-12, 1996). Underlined countries were covered throughout the conference.

* Based on multiple coding, percentages do not add up to 100. Each country in the story was counted only once. Barbados and Vietnam did not speak, but were covered.

Table 3: Comparison of Reuters Coverage Among Core, Semiperipheral and Peripheral Countries*

Number of Countries Covered	Percent of Stories Covering Countries in			
	Core	Semiperiphery	Periphery	Total
1	66.7%	11.1%	22.2%	9
2	95.2	23.8	4.8	21
3	100.0	66.7	-	9
4	100.0	34.8	-	23
5	100.0	100.0	8.3	12
6	100.0	100.0	12.5	16
> 7	100.0	100.0	53.8	26
Total				116

* Based on multiple coding, percentages do not add up to 100, except for the first row.

Table 4: Comparison of Reuters Coverage at WTO Meeting Across Regions

Region	WTO Membership	Countries Spoken+	Reuters Coverage*	% of WTO Membership#	% of Countries Spoken$
Africa	29.7%	23.1%	9.1%	10.8%	15.4%
Americas	25.8	25.0	27.3	36.4	44.4
North	2.3	2.8	6.8	100.0	100.0
South	23.4	22.2	20.5	30.0	37.5
Asia	18.8	21.3	27.3	50.0	52.2
Europe	21.9	25.9	31.8	50.0	50.0
Pacific	3.9	4.6	4.5	40.0	40.0
Total	128	108	44		

+ Entries represent distribution of member countries spoken at WTO meeting from Day 1 to Day 4 (December 9-12, 1996).

* Entries represent distribution of member countries covered by Reuters. Based on multiple coding, each country was counted only once in the same story.

Percent of WTO membership = Reuters coverage/WTO membership.

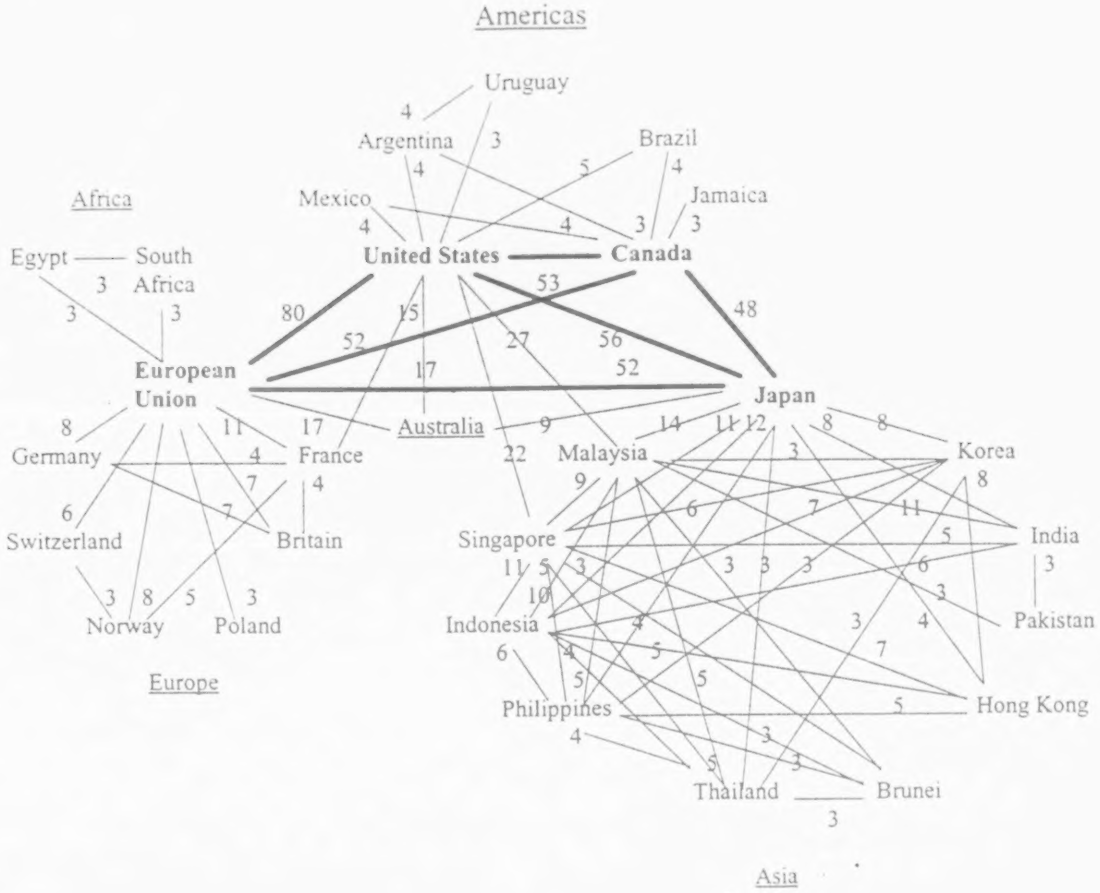
$ Percent of countries spoken = Reuters coverage/countries spoken.

Table 5: Comparison of Network of Coverage by Reuters Among Core, Semiperipheral and Peripheral Zones*

	Core	Semiperiphery	Periphery
Core	88.8%		
Semiperiphery	67.3	45.8%	
Periphery	16.8	15.9	9.3%

* Each pair of zones was counted only once, regardless of how many countries might be included in each zone. Based on multiple coding, total percentages do not add up to 100. Only stories involving two countries were considered (n = 107).

Figure 2: Network of Countries Covered by Reuters at WTO Meeting



Note: Entries represent frequencies of WTO countries in the same region co-covered by Reuters in at least three different stories from Day 1 through Day 4 (December 9-12, 1996, n = 116). Based on multiple coding, each pair was counted only once in the same story. Frequencies of co-coverage between the United States and other countries were as follows: India, 16; Indonesia, 16; South Korea, 11; Norway, 10; Britain, 8; Germany, 8; Philippines, 8; Hong Kong, 7; Pakistan, 5; Switzerland, 5; Thailand, 5; and Brunei, 3. Other cross-zone linkages are not shown.

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Table 6: Comparison Between a Country's Position and its Coverage by Reuters at WTO Meeting

Country's Position on*			Reuters Coverage		Total
Nexus of Trade and Labor Standards			Yes	No	
	Core	Yes	8	1	9
		No	1	1	2
		N/A	1	-	1
	Semiperiphery	Yes	3	4	7
		No	13	-	13
		N/A	6	2	8
	Periphery	Yes	2	1	3
		No	7	32	39
		N/A	6	36	42
	Total		47	77	124
Information Technology Agreement					
	Core	Yes	9	-	9
		No	-	-	-
		N/A	1	2	3
	Semiperiphery	Yes	10	3	13
		No	-	-	-
		N/A	12	3	15
	Periphery	Yes	2	1	3
		No	-	-	-
		N/A	13	68	81
	Total		47	77	124

* A country's position on the two major issues is based on its official statement at the WTO conference. N/A means that the two issues were not specifically addressed by the country.

Changing Epistemological Foundations in Journalism and Their Implications for Environmental News

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Changing Epistemological Foundations in Journalism and Their Implications for Environmental News

In their essay on the "third crisis in journalism," Bybee and Hacker (1990) offer a metaphor that propose a metaphor that the mass media are a wagon carrying our political and social structure. Within this metaphor, objectivity is seen as a wheel that is coming loose. For a number of reasons, the two theorists believe that objectivity as a tradition in journalism is under serious threat and might soon fall away, leaving the wagon very unstable.

In this paper, I wish to suggest that the wheel of objectivity was actually borrowed from the social sciences. In its original form in the academy, it was known as positivism. The point of this paper is that the original owners of the wheel perceived the instability of that wheel some time ago and have already shifted to a newer model, the newer model is postmodernism. It is very possible, being the borrowers that they are, that the journalistic community will soon take the same action. Some journalism educators have already been suggesting a similar abandonment of objectivity and a shift to postmodernism. Herein I wish to discuss the rationale suggested for such a move and attempt to weigh the costs and benefits the changeover might involve. Special attention is given in this paper to costs and benefits that can be seen in a specific instance of journalism, environmental news.

Journalism and its Relation to Social Science

A number of scholars have pointed out the ways journalism and the social sciences share common ideals. Charles Lemert (1993, p. 2), for example, suggests that social science (social theory, as he calls it) is the process all of us engage in when we learn something important about the world around us and put it into words. News reporters are certainly a privileged group among this larger body (which Lemert suggests should include us all as humans) in that they are paid to put experience into words. C. Wright Mills (1959), certainly one of the renowned sociologists of the twentieth century, makes a similar claim in the need for all citizens in our time to make use of what he calls the "sociological imagination." When listing groups of people for whom the skills of sociological imagination are most useful, journalists get specific recognition.

Perhaps Stephen Reese (1990) makes this point most forcefully in his discussion of journalism as a paradigmatic activity like social science. His claim is that all human inquiry is reliant on certain assumptions. Journalists operate within a given set of assumptions just as sociologists do. In the following section we examine the nature of those assumptions as they have existed throughout most of this century and how those assumptions have been challenged in the last three decades by a new paradigm. Though the new paradigm has not necessarily replaced the old, there are indications that it could. The implications for such replacement are important for consideration.

Positivism and Journalism

Neil Postman (1993) argues that the 19th century was a watershed period in the history of the American people in that we saw a clear change of ideological orientation from a traditional to a technocratic world view. As part of this progression, people began to put more faith in a positivistic approach to human thinking first espoused by Auguste Comte. Comte claimed that the world had reached a new height of intellectual maturity in that it could honestly approach the process of inquiry without the manacles of theological or even metaphysical thinking. Instead, inquirers could coolly analyze the world around them and gain precise, positive knowledge of its condition. Of course, this required humans to give up much of their old, traditional ideology. Postman's claim is that society as a whole chose to do so largely because technology (as one product of the new form of thinking called positivism) granted what it promised, more material products and comfort. On that account, positivism delivered the goods.

Soon, however, positivistic thinking invaded all of life. What delivered the goods in the material dimension, was assumed to be able to deliver the goods on every front. Postman's point is that all areas of life were eventually limited to thinking in the same mode as the natural sciences. That is, positivism became the modus operandi for all forms of human experience, spreading slowly to the farthest branches of human inquiry. Schiller (1981, p. 83) is in great agreement when he stresses the growing power of positivism in the mid-nineteenth century and the way it "nurtured a widespread acceptance of a uniform, objective world." Both authors also link the movement to Francis Bacon, whose key idea was the utilization of objective knowledge for the benefit of human progress.

In admitting that such a mode of inquiry does offer benefits to a society, Postman is stating that it may take some time for a group of people to recognize the drawbacks therein. Little wonder, then, that a number of authors suggest that positivism was the *dominant* mode of inquiry for much of the twentieth century (Diesing, 1991; O'Keefe, 1975, p. 169). The rule of positivism might be said to have reached its high point in the period shortly after World War II (Bochner, 1985, p. 28) and did not meet any serious threat to its ideological dominance until the late 1960s or 1970s. Until this point in history, positivism was seen as a foundation upon which much of human progress depended.

That foundation was largely the same regardless of the field in which positivism was applied. Thus, positivism for a physicist was the same a positivism for a journalist. Bybee and Hacker (1990), for example, offer a description of the positivism of American journalism that could just as easily describe the application of these epistemological foundations to astronomy or psychology. Their claim is that in positivistic journalism, "Reality is assumed to exist out there. It is perceived accurately or inaccurately as our senses and instruments of observation allow. Objectivity of knowledge is the ideal of human understanding" (Bybee and Hacker, 1990, p. 55). Expressed similarly by Krippendorf (1989, p. 69), the key to positivism "lies in the metaphorical grounding of objectivity in the conception of thinglike objects existing outside and independent of scientific observers." More succinctly:

> Our research reports refer to facts as hard, solid, concrete, or tangible. Facts are raw, original, simple, or uncontaminated. Facts are searched for, gotten, found, picked up, collected, gathered from above ground or uncovered, unearthed, dug up from below the surface. Once the observers have obtained such natural and thinglike facts, they may sort them, weigh them, describe them, arrange them, tabulate them, preserve them, look at them, describe them, record them, and process them in the form of data. (Krippendorf, 1989, p. 69)

Of great importance and quite noticeable in all of the above comments is the fact that positivism was intended to make a sharp distinction between facts and values (Bloom, 1975). This is crucial in understanding the application of positivism to journalism. In its purest form, positivism was limited completely to facts. As Davis (1995, p. 339) suggests that journalists had one tremendous disadvantage in comparison to scientists. They really had no time to theorize about their facts. This process was left to a small number of editorial writers. Schiller (1981, p. 83) suggests the epitome of positivism in the journalism profession is a Milwaukee editor who commended an article by saying it had been confined "almost entirely to the facts observed." This is not to suggest that positivism was the sole source of the notion of objectivity in news production. Theodore Glasser (1992) and Bybee and Hacker (1990) make compelling arguments that objectivity is at least partly a product of the demands of the commodification of news brought on by the marketplace. The connections between these two sources need not concern us here. The crucial point is that in applying positivism to the form of communication we call journalism, we detached facts from values. Objectivity, in this light is amorality (Glasser, 1992, p. 176). Just as a positivist physicist was thought to have a duty to simply describe the effects of gravity in a detached, objective manner, a reporter was thought to have a duty to social occurrences in the same manner. Positivism was no respecter of persons.

And in an era in which persons were generally thought to be improving (or, at least capable of improvement) this was of no great concern. That is, during the optimism that drove American society for a large part of this century, concerns over the epistemological (and axiological) dimensions of positivism as it applied to the social sciences and journalism were not widespread. Up until the 1960s many had faith that these two great features of modern American democracy might produce a great society, one in which humans overcame many of the problems which had brought earlier civilizations crumbling after relatively short life-spans (Lemert, 1993, p. 299-300).

But as the century began to wane and many social problems were not showing signs of improving (many were, in fact, showing signs of getting worse), larger numbers of critics began to question the wellsprings of our social knowledge. Though positivism in the hard sciences had continued to produce better material products and generally improve the material conditions of the average citizen, the average citizen had not been improved. That is, many of the social problems for which social science had promised solutions went unanswered. The reason for a dearth of answers was not certain to those at the academy or at the journal. But one common suggestion was that the method of inquiry which had provided numerous answers in biology, chemistry, and physics was *not* an appropriate method for answering many of the perennial questions about humankind and social existence.

The Critique of Positivism

Klaus Krippendorf is one of the many scholars who in recent years has suggested that positivism has outlived its usefulness. For Krippendorf the old paradigm does not help us produce knowledge about humans and especially about the most human element of our experience, communication. More than this lack of success, however, he also cites logical inconsistencies as a source of problems. As he states it, "Clearly, there must be something wrong with a paradigm that is so little suited to produce knowledge about human communication and creates so many epistemological problems for itself"(Krippendorf, 1989, p. 75).

Looming among these problems was the role of the human object as subject. That is, how could a system of inquiry largely formed for the purpose of studying detached physical objects such as rocks be used to offer knowledge of the ones actually doing the studying? The reflexive nature of the social sciences was truly problematic.

All social sciences were to be asked to deal with this difficult issue. Anthony Giddens (1989, p. 53) talks of a such difficulty in academia. Such a problem, he claims is "not specific to communication studies. It is a general 'crisis,' if you like, of the social sciences." The study of communication (including journalism) is seen as a part of the larger field of social science. A crisis in the latter will eventually be a crisis in the former. Bochner (1985, p. 32) uses similar terminology in describing the "crisis of confidence" experienced by the social sciences during the 1970s.

That journalism sooner or later falls victim to this crisis is clear in the analysis of Bybee and Hacker, who suggest the importance of this crisis for the question of objectivity in news writing. Their opinion is that "while previously, the concept of objectivity [for journalists] found validity in other areas of research and thought such as academia, those bases of support are no longer as available" (Bybee and Hacker, 1990, p. 65). Their point is that the journalistic community needs to recognize that it's platform has very recently been pulled from under it. During most of this century, journalism paid respect to the academy by relying on its epistemological foundations for its livelihood and its chief product—in the form of liberally educated graduates—for labor. Bybee and Hacker are suggesting that scholars at the academy have found increasing difficulty making sense of positivism and thus journalists will soon find increasing difficulty making sense of objectivity. To continue to see objectivity as a mainstay of the journalistic enterprise will take great effort.

> The concept of objectivity has failed to account for the recent theoretical advances in our understanding of the processes through which meaning and knowledge are created. It has also ignored the essential political character of those processes." (Bybee and Hacker, 1990, p. 53)

For Bybee and Hacker, this all leads to a very visible crisis for journalists. The visibility in the field of journalism is due to the fact that the profession has already experienced two significant crises to this point in history (Bybee and Hacker, 1990, p. 61-64). Just as the first two crises radically changed the nature of the field, this third has the potential to do so.

Refugees from Positivism

Giddens (1989) claims that nobody exists now who would refer to him or herself as a positivist. In even stronger language, he states that "This has become sort of a scare term" (p. 53). He suggests that we use the term "naturalism" instead. The main point to note is that undergraduates at today's universities are unlikely to want to attach themselves to this term (perhaps also to any other associated with it). In such a case we would expect many future journalists to adhere to an alternative proposed to them by their professors in communication and the social sciences. Probably the most common alternative at today's university is postmodernism.

Forewarning us of this, Bybee and Hacker (1990) suggest that it is those who study the sociology of knowledge whose constant hammering has begun to make many question positivism. Much of this work began in Europe, especially in France, where Derrida, Foucault, Lyotard, and Baudrillard called into question the very foundations of modernism.

On American soil, the likely candidate for supreme spokesperson for postmodernism is Richard Rorty. Rorty's reservations about epistemology and language spring from his conception of "vocabularies" with which we attempt to describe the world. For Rorty, it is futile to speak of the world "out there" and come to any real knowledge of it. That is, we can really have no truth of the world around us.

> Truth cannot be out there--cannot exist independently of the human mind--because sentences cannot so exist, or be out there. The world is out there, but descriptions of the world are not. Only descriptions of the world can be true or false, the world on its own--unaided by the describing activities of human beings--cannot. (Rorty, 1989, p. 5).

After this opening volley, the reader might respond, "But is it not possible that one description of the world is better than another?" Rorty says no, because our descriptions are always couched within "vocabularies." In other words, when we attempt to describe the world around us we must fall back on a given language. His use of the word "language" does not only apply to different languages such as English, French, and German. It also refers to differences such as the language of Aristotle, or the language of St. Paul, or the language of Newton (Rorty, 1989, p. 6). We use such language as the basic framework for understanding the world. Yet these cannot be judged, according to Rorty. In his mind none can be determined to be better than another.

Given this premise, Rorty (1989, p. 73) sees no alternative to the modern inquirer than to become an "ironist." Ironists, in his use of the term, are people who have grave doubts about the ability of their language to determine truth. Their doubts are so strong that they recognize a complete inability to escape this condition linguistically, and a recognition that any other language is no better or worse than their own. Irony is thus a form of complete agnosticism. This pessimistic epistemology might seem outrageous, but it bears much in common with the end results of other postmodern thinkers, for example, Foucault's recognition of the consistent presence of "regimes of truth," and Baudrillard's resignation to a world of simulacra.

Mixing Postmodernism and Journalism

Can such epistemological pessimism be of any use to journalists? Davis (1995, p. 343) takes seriously the possibility that journalism (in its most common form today) is an institution that could possibly disappear as modernity erodes. It appears unlikely that current standards and practice can maintain viability if the world shifts as many think it will. But it is also possible that journalism can adapt readily to a postmodern world view and survive quite nicely. Several scholars have proposed Rortyan applications in the practice of news reporting. For the most part, these writers are attracted to both the creativity and the utility that postmodernism allows the journalist.

In the broader world of communication studies, for example, Krippendorf (1989, p. 79) proposes an alternative paradigm to positivism, a paradigm that makes scientists "aware of their own creativity in constructing the realities we will all have to live with." With specific reference to journalism, Glasser (1992) has suggested creativity as an appropriate alternative to objectivity. The former allows journalistic individuality and imagination. The latter makes journalists into victims of routine and technique.

Far from a world of such mechanization, Glasser, (1992, p. 181) is suggesting that journalism in the post-objective world would be more like "story-telling" than reporting. He and James Ettema (1994, p. 7) ground the idea of storytelling most firmly in Rorty, who leads them to believe that the ironist's fundamental role in a postmodern world is to tell stories that make us reluctant to impose suffering on one another. The creativity of this approach is highlighted when the authors suggest that the process eventually allows the journalist to "bring a new world into existence" (p. 7).

Of course, the reaction many traditional journalists have to the notion of creativity is that it is anathema to the journalist's responsibility to simply relate facts about the world. Glasser (1992, p. 183) himself quotes Walter Cronkite as saying "let's go with the job of reporting—and let the chips fall where they may." Artists are creative; journalists are objective. Granted, for many old-school reporters—perhaps even Cronkite holds this view—the point is not objectivity for objectivity's sake. It is assumed that once an objective picture of the world is presented, adjustments to that world can be made. This perspective posits that the truer the depiction of the world the more likely good things will result. In other words, any tinkering based on factual information might bring positive results. Such journalistic "realists" probably feel that Glasser's creative renditions of the world leave the citizen with nothing real on which to operate. There is no true basis for citizenship.

Yet the postmodernist claims that there was no "real" basis for citizenship in the first place. In a Rortyan sense, all descriptions are contingent on a language. That is, citizens may feel that they have a good grasp of the world around them and a solid basis on which to judge that world (in the previous paragraph, this was the vision they use to determine where and how to "tinker"). But Rorty suggests that what communities really have is the ability to describe the world in such a way as to make sense to themselves. In other words, the world does not correspond to a certain form of reality, the world is simply described in such a way that it makes sense to a certain group of people. Rorty's difficulty with this is that when pressed to explain their vocabulary, groups simply "redescribe" the world using other words from their vocabulary. That is, they rely on language to defend their choice of actions. After such a redescription, a critic can ask what foundation that redescription rests on. In this unending series of "redescriptions," the community must eventually use certain words to defend their decisions. These words, words such as "true," "good," "right," and "beautiful," are what Rorty calls "final vocabularies" (Rorty, 1989, p. 73). Rorty, in his anxious antifoundationalism, points this phenomenon out *not* for the purpose of defending final vocabularies, but for showing their fault. He is not willing to accept anybody's final vocabulary as a barometer of absolute truth. As an ironist, he doubts the validity of any and all of them. In such a position, he cannot truly defend any notion of truth as eternal truth, only as contingent truth. And if truth is merely contingent, we shouldn't grow too attached to it. Rather, we should simply use it as a means to an end.

This utilitarian approach is clear in Rorty and has already been adopted by many in the broader social sciences. Rorty (1991, p. 110) himself claims he is working within a pragmatist realm, not a realist one. As he states it, "For now one is debating what purposes are worth bothering to fulfill, which are more worthwhile than others, rather than which purposes the nature of humanity or of reality oblige us to have." Or, put another way, he suggests, "we give up the notion of science traveling toward an end called 'correspondence with reality' and instead say merely that a given vocabulary works better than another for a given purpose" (Rorty, 1982, p. 183). Bochner (1985) says as much when he claims that even the successes of the natural sciences are utilitarian, not a reflection of a correspondence theory of truth. Specifically:

> What we have learned more recently is that the achievements of natural science may be due *not* so much to a method that makes science 'objective' as to language that makes it 'useful.' (p. 33)

Bochner's point is that communities need not ask how they might find a means of knowing the real world. Rather, they should ask themselves what they want to accomplish and choose the appropriate vocabulary for reaching such goals.

To this, Ettema and Glasser are in clear agreement. Journalism for them is not an attempt to discover concrete realities. In this perspective no concrete realities are possible or desirable. The impossibility is based on a Rortyan sense that nothing foundational can support truth claims of any sort. Even cherished democracy is open to attack and beyond rational defense. Taking an ironist position, Ettema and Glasser (1994, p. 6) are forced to concede that when democratic values are challenged, the ironist must recognize that "there is no ultimate criterion" on which challenges can be dismissed, only contingent language.

Given this starting point, contingent language is the be all and end all of postmodern journalism. From such a standpoint, the journalist's role is simply to tell as many stories as possible—"listening to lots of different people" (Ettema and Glasser, 1994, p. 6)—so that we can build a life together. There will not be any greater truth developed in our dialogue, but perhaps in sharing our stories we will be less willing to "inflict suffering on one another"(p. 7).

As mentioned above, this impossibility of concrete reality goes hand in hand with undesirability of concrete reality. A complete jettisoning of truth is hard to swallow, but Ettema attempts to support his argument by utilizing the work of Jean-Francois Lyotard. While Rorty suggests that we should recognize the foolishness of seeking common truth in metanarrative, Lyotard suggests we should recognize the negative consequences of that maneuver. Ettema leans heavily on the French postmodernist who suggests that any attempt to rejuvenate a metanarrative (even in the service of democracy) is an act of violence against heterogeneity.

What this double-edged sword of disbelief in foundations and fear of violent metanarrativity resigns Ettema and Glasser to is a journalism that relies on "small stories" (Ettema, 1994, p. 4). These small stories might be tales of common citizens fighting the injustices imposed on them by public officials. Or, they might be the unusual—but very human—report of a victim of war in Central America. In either case they inform the reader of short lived truths that are supposed to help make sense of events that occur in a foundationless world where the actions human beings cause pain and suffering.

The Case of Environmental Reporting

Though much of the discussion of postmodernism has revolved around its epistemological repercussions, the above comments should give some indication that linkages naturally flow into other theoretical dimensions of inquiry. Any discussion of the epistemology of postmodern thought will eventually necessitate a discussion of the ontology and axiology of postmodern thought as well. I contend that in the case of postmodern journalism these other dimensions are vividly brought to the front by a discussion of the application of such a practice to environmental issues.

Environmental news offers a unique frame for finishing our discussion because it opens new avenues of thought and develops new insights that are not readily available when postmodern journalism is examined as a purely social phenomenon. Most of the discussion of postmodern journalism offered thus far assumes that journalism deals with the humanly created world, the world of social structure. Certainly a large part of the product we normally think of as "news" does just that. Yet much of human experience is inextricably linked with the natural environment. Given this linkage, some news must deal with a reality that (potentially) has an existence outside of social structure.

Therefore, any epistemological debate about our ability to know essences and to come to grips with foundations must eventually make connections with the nature of being or existence. For example, when Ettema and Glasser speak of calling the world into existence, one must ask what the nature of this new world is and how it relates to any previously existing worlds. While most communication scholars would readily admit that humans have a creative ability to hammer out new social structures (and thus create "realities" for themselves), it is not readily agreed that we can create an all-encompassing reality that ignores the intrinsic nature of the world around us. On this there will be sharp disagreement. Backes (1995), for example, points out that the nature of environmental reporting is making connections between the human social system and the "biophysical system" of the natural world. While these two spheres of existence interrelate and have an impact on one another, neither is subsumed by the other.

Hence the key ontological issue to be addressed here is whether there is any such thing as extra-discursive reality. If journalism limits its discussion to the ways that humans make other humans to suffer, one might claim that the field is devoid of such. If journalism, on the other hand, explores the entire realm of human experience such a claim is much harder to defend. And certainly if a journalist is to make any assertion about the state of the natural world (whose connection to human culture is sometimes more difficult to see) this position is even harder to hold. Though speaking of social science in general (not specifically of journalism), Caroline New (1995) states this forcefully.

> To make or assess an apocalyptic claim about environmental threat requires us to believe that reality exists and has certain characteristics and structures independent of human discourse. Social reality is discursively constituted, yes, but in response to definite

> material conditions, and it, too, takes definite forms of which the social sciences offer various more or less adequate accounts.(p. 809)

New's point is that epistemological postmodernism has strong ontological repercussions. To have doubts about our ability to know the world around us is one thing, but to talk as if that world itself is contingent on our knowledge—or doubts—is another. It is in this way that New (1995, p. 810) accuses Rorty of throwing out "the ontological baby with the epistemological bathwater." Shepherd (1993, p. 90) likewise points out that the Rortyan strategy has potential dangers. "Accepting a view of communication, shorn of any ontological foundation, and making it paradigmatic of existence entails celebrating the insignificance of Being itself."

This is not to say that if we choose to work with the conception of extra-discursive reality that the relationship between it and the human community will be easy to map out. Any recognition of the ontology of nature demands a careful explication of humanity's place within (and outside of) it. And Rorty (1979, p. 351) is obviously concerned about the implications of such an explication, claiming that it brings back "the bad old metaphysical notion that the universe is made up of two kinds of things." What this discussion really does is continue a debate that led many scholars away from the previous positivistic paradigm. Krippendorf (1985), for example, suggests that positivism pushed for unobtrusive measures and asked inquirers to divorce themselves from the object of study. Any discussion of the natural environment begs an analysis of the actual feasibility of such a tactic. A reporter who writes about air pollution, for example, cannot divorce herself from the object she studies. For one thing, she most likely drives an automobile to be able to get to interviews with scientists and environmental activists. In doing such, she thus adds more smog to the air she is writing about. But as she interviews the scientist and the activist she attempts to detach herself from their discussion. The claim that she can totally divorce herself from the air she breathes is certainly ludicrous. But the claim that the air itself is completely a product of the discursive practice of this journalists and all the other communicants in the social system is equally so.

Put in perspective, the practice of reporting about the environment demonstrates the complex interwoven relationship that exists between the natural world created without human input (the biological), and the humanly created world (the social). Backes (1995, p. 149) points out that these two spheres overlap in numerous ways. For example, when we refer to many of the elements in our environment as "natural resources" we have imposed certain conditions upon them. Our use of this concept drastically affects the way we come to think about the very nature of pre-existent objects. To claim that these objects are not impacted by our discourse is noticeable folly. Yet to go to the opposite extreme and see these items as *nothing but* the product of discourse is equally so. New makes this case in regards to Laclau and Mouffe's claim that the ontology of any object is completely dependent on human discourse. After noting how such postmodernists link the "being" of a stone to humanity's use of it, New (1995, p. 815) states:

> How we use stones depends in turn on how stones *can be used*, which depends on their extra-discursive power. The fact that these may be variously conceptualised depending on the viewpoint, perceptions, powers and purposes of the describer—there is no one truth—does not mean that the characteristics of stones would not exist in a universe where there was nobody to throw them and nobody to describe it.

Returning to our example of the air we breathe, then, the reporter who tries to understand the way human activity affects that air must recognize that their are two dimensions involved. The extra-discursive dimension deals with the orderly way that this entity exists in the broader realm of creation. The discursive realm deals with our part in altering the entity and our limited understanding of the extra-discursive realm as a whole. It is important not to conflate the two. As

New (1995, p. 814) points out, to confuse epistemology (our perception and knowledge of the environment) with ontology (the environment itself) is inimical to the project of inquiry.

Another possible area of confusion is between epistemology and axiology. While much of the discussion of postmodernism has been epistemologically oriented, most social science also entails an axiological dimension, requiring assumptions about values. In fact, many of the seeds of postmodernism were planted in pragmatism, which was a reaction against the claims of value-freedom in positivism (Bloom, 1975; Bochner, 1985). Rorty (1982, p. 198) himself admits that one reservation about positivistic science is that "it is not a good vocabulary for moral reflection." The pragmatist claim is that positivism's push for absolute facts left it in a position of inability to distinguish "signification" and "significance" (Bloom, 1975). That is, the inquirer was able to describe events and relationships, but make no claims about how we should feel about such relationships.

Environmental journalism is a good place to become aware of the difficulties that this poses. As noted by Bybee and Hacker earlier, positivism lead reporters to see themselves as nothing more than fact-finders. The faults evident in such a position are just as obvious as the faults in the subject-object distinction mentioned earlier. One of the reasons for the flight from positivism was a general recognition of the inability to completely detach fact from value, a problem social scientists have struggled with this issue since Weber (Smith, 1989). Glasser (1992) claims that fact/value distinction is an equally thorny issue in journalism and suggests that for journalists a flight from objectivity (to postmodern thinking) is therefor warranted.

Yet just as a cautious attitude toward positivism does not require a leap to postmodernist ontology, a cautious attitude toward positivism (or objectivity) does not require a leap to postmodernist axiology. In the realm of environmental news, such a move raises important issues. After all, Rortyan antifoundationalism claims that nothing is inherently good or bad, right or wrong, beautiful or ugly. Just as ontology is (for the extreme postmodernist) merely the product of our discourse, value is as well. But environmental reporting may require certain core values to proceed. Should we come to the conclusion that there is nothing firm on which those values rest, the process of reporting about the environment becomes moot.

The point is that a postmodern axiology is strongly anti-deontological. Ettema and Glasser use Rorty to call for a sophisticated journalism where stories are told with the ultimate goal being a series of discussions in which the world can be created and recreated at will. In such a journalism there is no foundation upon which these stories rest. Any attempt at imposing a metanarrative will simply be met with redescription. There is nothing fundamentally good upon which we can impose our duty. For example, in the interest of the environment, one might suggest the importance of the great Hebrew narrative of the integrity of creation—a narrative that suggests that at the end of each stage of creation God stated that the created order was inherently good. Ettema and Glasser would suggest that such a tale is open to endless redescription and is thus a dead end. But must it be? And can any discussion of the environment continue without some foundational elements? The irony here is that in the progression from positivism to pragmatism to postmodernism values have seen differing degrees of importance. In positivism, inquirers assumed that they could divorce themselves from any values. In pragmatism, inquirers assumed they could use values as a means of determining knowledge. In postmodernism, values disappear through redescription. Many will disagree with Rorty and hold that redescription need not be an endless game—Ettema mentions Habermas as representing this alternative—and suggest that communities of open discussion can reach consensus on core values. The postmodern route does not allow for such a sanguine solution, though. Recall that Lyotard sees any such consensus as violence against heterogeneity. Clearly, this fear is a plea for absolute liberty and equality. Schick (1992) summarizes Rorty in a similar way as a call for "liberty, equality, and diversity." Rorty argues that if people are to be completely free, we must reject the idea that any vocabulary is better than another. And for people to be equal, we must do the same.

Conclusions

But here we come back to the persistent problem in our discussion. If there is such a thing as extra-discursive reality, is diversity in such a venue the same as diversity in social structure? The ironic twist here is that the term diversity has been very popular in the biological sciences and environmental reporting for some time. Used in those contexts, however, it does not refer to lifestyle diversity among humans, but life diversity in the plant and animal kingdoms. "Bio-diversity" refers to the number of species that are able to survive in our world. One of the chief issues in recent writings on the environment is the responsibility humans have for maintaining bio-diversity. Does a Rortyan perspective leave any room for concern in this area? This is a good question for future study. Though Krippendorf's (1989) perspective is different from Rorty's his comments on the shortcomings of positivism are revealing.

> By making an objective and observer-independent reality the principal ruler over the constitution of scientific knowledge, this dominant paradigm in effect absolves scientists from taking responsibility for their own creations. (p. 78)

Whereas Krippendorf suggests that positivism removes culpability from social theorists, those who wish to report about the environment need to ask if postmodernism removes culpability from all theorists. If our perception is that we can constantly recreate the world in our own image, we may feel that we have no obligation to maintain the world as already created. In the move to pragmatism and postmodernism the point is to make us aware of our role in producing social structure and therefore be open to manifold changes therein. In making this move, we may lose sight of a world which we did not create and fail to ask ourselves how our actions affect it.

In the end, the broader philosophical issue of such a putative world is crucial. Though beyond the scope of this paper, one must grapple with the metaphysical issue of the existence of such and start inquiry from that point. Pearce (1989, p. 202) rightfully suggests that the major distinction in communication theory is no longer between positivism and critical communication scholarship. It is between foundationalism and constructionism. The first camp argues that we live in one world, the second that we live in multiple worlds. As we have seen in this paper, journalists tend to borrow ideas from the academy, and ideas from communication theory will soon make their way into the newsroom. In the very near future journalists will be asked to grapple with this issue on their own.

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The Role of Involvement and A Conceptual Model for Optimal Health Communication Strategies

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ABSTRACT

The Role of Involvement and A Conceptual Model for Optimal Health Communication Strategies

This study is the incipient stage for formulating a respondent-oriented conceptual model for optimal health communication strategies. As the prevailing theory in involvement research, the Elaboration Likelihood Model (ELM) is discussed. Also weaknesses of the ELM and other perspectives for involvement research are investigated. As moderators of the health communication process, involvement is divided into enduring and situational involvement. Based on the review of the literature, a new health communication model and optimal strategies are proposed. The new model has two dimensions (enduring involvement and situational involvement) and four strategies: an affect-evoking, an information-oriented, a cue-emphasizing, and a balanced-argument strategy. For the empirical research, a 2 x 2 experiment with 143 undergraduate students was conducted. Generally, the moderating effects of both enduring involvement and situational involvement are supported. Regardless of some deviations from the proposed model, optimal strategies fit into the designated involvement level. Compared to the ELM, this proposed model accounts for all cases of involvement and also explains the inconsistent cases of enduring and situational involvement.

Title: The Role of Involvement and A Conceptual Model for Optimal Health Communication Strategies

Introduction

Research has been conducted to clarify the relationship between motivation and preventive health behavior (Moorman and Matulich, 1993) and to enhance the use of psychological and behavioral variables in health marketing (Zaltman & Vertinsky, 1971). Involvement has been a critical variable in many advertising, social psychology, and consumer behavior studies (Petty & Cacioppo, 1981, 1986). However, little has been done on the role of involvement in health communication. Health communication research typically has focused on single demographic or psychographic variables such as age, gender, minority status, and health beliefs (Moorman & Matulich, 1993). Respondents' decision-making is critical in understanding effective health communication; without this understanding, it is impossible to map out an effective health communication strategy.

In general, communication campaign planners now are more likely to view target groups as active rather than passive information users. But in health communication, differences in the relevance of health messages to individuals has not received much discussion. Depending on the different levels of involvement in health messages, optimal strategies in health communication can be changed drastically. Many moderators can affect respondents' motivation for behavior change, such as involvement, need for cognition, mood, and personal responsibility (Inman, McAlister, & Hoyer, 1990).

Involvement is one of the most important factors in behavioral change studies (Petty & Cacioppo, 1981). The concept of involvement originated from analyses of different respondents. Through the study of involvement, optimal strategies for reaching diverse groups of respondents in health communication can be devised. However, the previous explanation of involvement in the Elaboration Likelihood Model (ELM) is too narrow to explain respondents' diverse health communication processes. Petty and Cacioppo (1983, 1986) differentiated involvement only as either high or low, and many researchers have criticized the simple division of the peripheral and central route (Baker and Lutz, 1996; Cole, Ettenson, Reinke, & Schrader, 1990; Bitner & Obermiller, 1985). Thus, the purpose of this paper is to propose a new involvement-related health communication model for accommodating diverse groups of respondents after investigating antecedents of involvement as moderators of health communication.

Some health communication models explain both preventive-health behavior and sick-role behavior. However, many of the health models focus on predicting behavior to curb practices that damage one's health. Examples include smoking, overexposure to the sun, dietary causes of heart disease or cancer, drug abuse, drunk driving, safe sex practices for preventing HIV infection, and mammography. Health communication itself has preventive characteristics. The aim of preventive health communication is changing respondents' attitude to prevent disease (Green, Rubin, Hale, 1995). This is totally different from product or service campaigns. Researchers have been mired in the differences between "to do" promotion and "not to do" promotion because health communication is designed to prevent risky behavior, rather than to make respondents buy products. Health communication is more dependent on respondents' judgment, rather than the strength of message (Moorman and Matulich, 1993).

This paper (1) disscusses the ELM framework and the weakness of the ELM; (2) describes the antecedents of involvement and research streams for clarifying varying levels of involvement and identifying moderators of the health communication process; and (3) describes a new model that differentiates between individual and situational relevance and offers four optimal communication strategies with new moderators (enduring and situational involvement). As a further discussion of the health communication process, the idea of subjective norms is introduced to balance the attitudinal emphasis of this new health communication model and offering suggestions for future research.

Literature Review

Involvement in the Elaboration Likelihood Model (ELM)

Elaboration Likelihood Model (ELM)

The ELM can be applied well to individuals' health behavior as a more general model. The ELM describes the reception of persuasive health communication (Petty & Cacioppo, 1981, 1983, 1986). Depending on the level of involvement, respondents follow the peripheral route or central route to process information (Figure 1). For example, a person who has a family disease history will pay greater attention to a pertinent health campaign message (central route), but a person who has no direct experience with a disease will be more affected by non-message cues, such as the expertise or attractiveness of a health

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Insert Figure 1 about here
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message source rather than message contents (peripheral route). The function of message and recipient characteristics has been well documented by this model.

It is not reasonable to assume that everyone would focus on the same message. Also, the majority of a given message is not relevant to a given individual. The ELM explains both issue-relevant and non-issue-relevant attitude change. The central route is relatively enduring and predictive of behavior change. The peripheral routes can explain issue-irrelevant cues and unpredictive behavior change (Petty & Cacioppo, 1981, 1986; Petty, Cacioppo, & Schuman, 1983).

Criticism of the ELM

Petty and Cacioppo's (1981, 1983, 1986) two routes to persuasion do not explain all attitude change. The peripheral route is an overly broad and vague definition of behavioral change because the ELM cannot explain all the cases, such as those in which the receiver is moderately involved (Baker & Lutz, 1988, 1996). The cognitive levels between pure emotional response and consideration of simple outer stimuli, such as celebrity reference and message credibility, require different cognitive efforts (In the ELM, all of these situations are deemed low involvement).

Insert Figure 2 about here

In the Relevance Accessibility Model (RAM) (Baker and Lutz, 1988, 1996), the persuasion process has three route heuristics (Figure 2). Baker and Lutz argue that the ELM oversimplifies the cognitive process by failing to describe other possible circumstances such as moderate levels of involvement or inconsistency between enduring and situational involvement.

The ELM does not predict how processing will occur when enduring relevance and situational relevance are inconsistent (for example, in the case of low personal interest but high situational risk). In health communication, types of antecedents of involvement such as personal and situational relevance should be considered as moderators of health communication because respondents' involvement with health messages relates to personal and situational factors in their lives.

The ELM does not take into account the possibility that the function of cues depends on respondents' characteristics and situational involvement, rather than whether or not cues act centrally or peripherally (Cole, Ettenson, Reinke, & Schrader, 1990). Also, when no other central cue is presented, a peripheral cue may act as a central cue (Bitner & Obermiller, 1985). Thus, the analysis of central and peripheral routes is somewhat inapplicable to health communication because of different levels of enduring relevance of health messages.

Other Perspectives on Involvement Research

Involvement has been a critical variable in many persuasion, consumer analysis, and advertising theories (Celsi & Olson, 1988; Krugman, 1965; Petty & Cacioppo, 1979, 1981, 1983, 1986). Involvement has been conceptualized in diverse ways. It can include specific personal characteristics and situational settings (Celsi & Olson, 1988; Show, Celsi & Abel, 1990; Haugtvedt & Strathman, 1990).

Consumer behavior research developed the concept of involvement as a way of predicting advertising effectiveness (Krugman, 1965). Krugman noted that different modes of consumer information-processing should affect the effectiveness of advertising. With low involvement, repetitive advertisements might be more effective than a dramatic, one-shot advertisement. With high involvement, advertising that employs a "conflict of ideas at the level of conscious opinion and attitude" might be more effective than repetitive advertising (Krugman, 1965; Rothschild & Ray, 1974).

In tune with Krugman's definition of the personal "bridging experience," involvement is generally defined as mediating personal relevance in determining the effectiveness of communication. But in light of recent studies of the antecedents of involvement, involvement also can be explained by its other definitions, which include the concepts of intrinsic sources of personal relevance and situational sources of personal relevance, enduring involvement and situational involvement (Celsi & Olson, 1988; Houston & Rothschild, 1978; Zaichkowsky, 1986).

Antecedents of Involvement

In advertising and consumer analysis research, antecedents of involvement have been widely discussed to better conceptualize it. In conceptualizing involvement, Zaichkowsky (1986) proposed three types of involvement antecedents: personal characteristics, object characteristics, and situational characteristics. Personal relevance related to these three factors is a necessary condition for attention and attitude change. Also, respondents use different cues depending on the personal relevance of the communication or the persuasion process (Petty & Cacioppo, 1979, 1981, 1983, 1986).

With situational manipulations and differences in stimuli, the enduring personal source is critical in the communication process. Intrinsic factors in personal relevance play an important role in the communication process (Chow, Celsi, and Abel, 1990; Zaichkowsky, 1986). The introduction of intrinsic personal relevance is a brilliant idea countering the uniformity of a communication campaign (for example, personal interest in safety and concern about disease are different over all kinds of health messages).

Situational involvement originates in the evaluation of external conditions. Message contents or respondents' situations are the primary focus of this research (Burnkrant & Sawyer, 1983, Celsi & Olson, 1988, Petty & Cacioppo, 1981, 1986). Situational antecedents of involvement (situational relevance) and other moderators for persuasion (need for cognition, mood, and personal responsibility) are closely related to this research stream. (For example, gay men whose sex partners died of AIDS are more interested in the HIV/AIDS prevention message compared to people not affected by HIV/AIDS. Also, if those men are uneducated, the level of literacy of the message plays a role in the attitude change).

Enduring involvement represents the pre-existing experience and knowledge structure of the respondents (Celsi & Olson, 1988; Houston & Rothschild, 1978). Product involvement also is included in this category. With regard to health communication, personal concern about risk is deeply related to this concept.

Enduring and Situational Involvement as Moderators of a New Model

Zaichkowsky (1986) explained that personal factors (needs, importance, interests, and values), and situational factors (purchase/use and occasion) can serve as antecedents of involvement and affect the possible results of involvement. Celsi and Olson (1988) divided personal relevance into intrinsic sources of personal relevance (ISPR) and situational sources of personal relevance (SSPR). For example, if somebody became interested in buying products because of rebates and coupons, he/she is in high SSPR. If somebody enjoys shopping, he/she is in high ISPR. ISPR is an "enduring and stable" structure, but SSPR is an "dynamic and changeable" structure.

Houston and Rothschild (1978) pioneered these concepts of enduring and situational involvement. They found that enduring involvement and situational involvement affect "response involvement." In health communication, these research streams can be treated as the antecedents of involvement because respondents have different enduring and situational relevance to the same health communication stimuli.

In conceptualizing this study, enduring and situational involvement can be defined as the antecedents of involvement. These antecedents are the moderators of the health communication process. Celsi and Olson's (1988) ISPR and SSPR provide similar definitions for this study. Enduring involvement is the pre-existing relationship between a respondent and the stimuli (Houston & Rothschild, 1978; Zaichkowsky, 1985, 1986) or enduring personal relevance and stable predisposition in long-term memory (Celsi & Olson, 1988). Situational involvement depends on the non-enduring characteristics that give momentum to respondents with concern for their behavior (Houston & Rothschild, 1978) or "dynamic and changeable felt involvement" (Celsi & Olson, 1988).

Proposing a Health Communication Model and Optimal Strategies

Issues of Involvement as a Moderator of Health Communication

Health behavior research has some inherent problems in applying theories related to involvement. Health communication research typically has focused on how to send messages, not on whom to persuade.

Most of the applicable health communication models do not consider the level of involvement among respondents. Also, the weakness of health marketing, including the social marketing approach, is that it is too dependent on demographic and psychographic segmentation. Without considering the level of involvement, a simple segmentation strategy would not work.

In previous communication research, two relatively distinct routes to persuasion, rather than the function of involvement, have been the main focus. Involvement is defined as the moderator of motivation and ability in persuasion. But in health communication, intrinsic personal relevance of health issues and situational relevance seem more important than in other communication situations. For example, an individual whose family members have been seriously injured by a drunk driver or one who generally is more safety-oriented will be more interested in anti-drunk-driving health communication messages than an individual who does not have any related experience or is a carefree person.

Typically, in health campaigns, most respondents are not involved with health issues. As previous involvement research has indicated, enhancing respondents' involvement is an effective strategy in health campaigns (Chaffee and Roser, 1986). But this task cannot be systematic unless the antecedents of involvement are clarified. For an exact diagnosis, an in-depth analysis of involvement is needed.

There has not been much research that directly investigates the role of involvement in health communication. The purpose of the new health communication model is to overcome the limitations of other health communication research. Consumer behavior and advertising researchers already have tried to investigate the sources of involvement and have studied the relationship between involvement and consumer behavior in a more detailed way.

Proposed New Health Communication Model and Optimal Strategies

The biggest problem with previous health models is their extremely straightforward approach to health communication. The message-sender-oriented approach does not always account for the diversity of respondents. Also, Petty and Cacioppo's (1981, 1983) two heuristics to persuasion are not enough to provide for optimal health communication. In fact, health communication is deeply related to personal and situational involvement. The proposed health communication model has two dimensions of involvement: enduring and situational involvement (Figure 3). Depending on the degree of each type of involvement, there are four different optimal strategies that correspond to the four involvement situations: low-enduring involvement and low-situational involvement, high-enduring involvement and low-situational involvement, low-enduring involvement and high-situational involvement, high-enduring involvement and high-situational involvement.

Insert Figure 3 about here

The different levels of involvement and optimal strategies were concerned with enhancing preventive-health behavior. Thus, sick-role behavior is not discussed in this model.

H1: Enduring involvement and situational involvement moderate the effect of strategies in health communication.

Cell 1. An Affect-Evoking Strategy

This is the most effective model for cases of low-enduring involvement and low-situational involvement. When both types of involvement are low, the individual's motivation to process health communication messages is very low. For example, a health organization is preparing a health campaign to inform the public about the risk of overexposure to the sun. When the respondents of the health-communication message are in low enduring and situational involvement groups, an advertising campaign that includes a horrible scene of skin cancer patients and gruesome background music and focuses on pure emotion will be more effective than an message-oriented advertising or celebrity advertising campaigns.

H2a: An affect-evoking strategy is more effective for the low enduring and situational involvement respondents than in other involvement levels.

Cell 2. A Cue-Emphasizing Strategy

This category is needed to enhance the effectiveness of health communication when respondents are low in enduring involvement but high in situational involvement. When a person generally does not care about his health and is not concerned about safety, health communication should focus on effective presentation of the health risk. By using a celebrity advertising or endorsement campaign, health communicators effectively inform these individuals about the risk of unhealthy behavior. If they start to perceive the risks of unhealthy behavior, the effect of health communication will be greatly enhanced. Source credibility and endorsement are the most important factors. For example, a tourist in Florida for only a few days might have low-enduring involvement and high-situational involvement in the risk of overexposure to the sun. This tourist will be more likely to respond to a cue-emphasized campaign than a heavy information appeal about avoiding sunburn. He does not care a lot about health issues in general. In this case, a celebrity who has had a skin cancer experience can help him understand the risk. Celebrity campaigns give an attention-grabbing function to respondents who are only situationally involved. This strategy will be more effective than merely presenting detailed information or showing a horrible scene of skin cancer patients.

> H2b: A cue-emphasizing strategy is more effective for the low enduring and high situational involvement respondents than in other involvement levels.

Cell 3: An Information-Oriented Strategy

This strategy should be very effective in cases of high-enduring involvement and low-situational involvement. This strategy is very important in health communication because other marketing campaigns rarely use the information-oriented campaign. An information-oriented strategy is focused on the distribution of information to people who need the information at that moment, rather than on message quality and interest.

For example, consider an healthy individual who originally did care about health issues because he has cancer history in his family. The man would be classified as high in enduring involvement but low in situational involvement. In this case, providing as much information as possible about skin cancer is more important than the message quality because this person wants to satisfy his specific need for health information. Only respondents in high enduring involvement would be readily equipped to absorb an information message. In this case, a informative approach is more effective than horrible scenes or celebrity campaigns.

H2c: An information-oriented strategy is more effective for respondents with high enduring and low situational involvement respondents than in other involvement levels.

Cell 4: A Balanced-Argument Strategy

This strategy should be very effective for cases of high-enduring involvement and high-situational involvement. This is in line with the central route of the ELM in cases of high involvement (Petty & Cacioppo, 1981, 1983). Also, this cell is related to the finding that the central and peripheral routes intertwine under high involvement (Lutz, MacKenzie, Belch, 1983).

Message cues are still important in reaching high involvement respondents because they help to get attention. The most important part of this strategy is the balanced structure of message cues and argument. Both information and cues can grab the attention of highly involved respondents, but a one-way approach that emphasizes only one of these strategies will lessen interest in a health message because a person with high enduring and situational involvement reacts to both a cue and information. A balanced message argument that uses strong arguments buttressed with statistical comparison and some external cues optimally fits this kind of involvement. For example, if a health-concerned person finds out that his neighborhood has several cases of skin cancer, he is in a state of high enduring and situational involvement. In this case, health campaign advertising that emphasizes a strong relationship between overexposure to the sun and skin cancer and is endorsed by doctor will be more effective than other strategies.

H2d: A balanced-argument strategy is more effective for the high enduring and high situational involvement respondents than in other involvement levels.

Methodology

Subjects and Design

A total of 143 men and women enrolled in an undergraduate class called "Television and the American Family" participated in the study to earn extra credit. The experiment was a 2 (enduring involvement: high or low) * 2 (situational involvement: high or low) design. The experiment was conducted through two research sessions.

Experiment Procedure

To test the research hypotheses, safe sex for preventing HIV/AIDS was selected as the domain of involvement. This issue has been discussed in diverse ways among college students. Two research processes were conducted. In the first process, a screening test with 143 college students was executed. The screening questionnaire measured subjects' enduring involvement about safe sex. Of the 143 students, 124 who represented high and low enduring involvement levels were selected to participate the experiment. Two subgroups from two levels of measured enduring involvement participated in the second session. Before testing stimulus materials, subjects received one of two manipulations of situational involvement by the different kinds of information.

Measuring and Manipulation of Involvement

Zaichkowsky's (1985) Personal Involvement Inventory (PII) was used to measure subjects' enduring involvement related to safe sex. Her personal category of involvement represents "inherent interests, values or needs that motivate one toward the object" (p 342) A semantic differential scale was developed to capture the level of involvement PII includes these 20 items such as important-unimportant, irrelevant-relevant, valuable-worthless, trivial-fundamental, and significant-insignificant Subjects' responses to these items for safe sex were summed, producing a minimum score of 20 and a maximum score of 140 Subjects were divided into the low, moderate, and high levels by scoring Only the subjects with low and high levels of enduring involvement were selected for the next steps

The subjects in the low situational involvement group were informed that they would be asked to choose the most persuasive advertisement from four different advertisements, but no information or situational stimuli were given The subjects in the high situational involvement group were manipulated through three steps In the first step, the subjects read an article that included the statement that 10 percent of students in their college were infected with HIV In the second step, the experimenter asked them to assume that a close friend had been infected with HIV recently In the third step, they were told that their choice of advertising material would be used in the campus safe sex campaign

Stimulus Materials and Pretest

Four different advertising strategies were created an affect-evoking strategy, an information-oriented strategy, a cue-emphasizing strategy, and a balanced argument strategy The affect-evoking strategy was designed to evoke subjects' emotional response An advertisement contained a horrible scene of AIDS patients and a headline This attempted to facilitate affective response through the use of a visual scene

The information-oriented strategy was designed to give subjects as much information as possible about HIV/AIDS. An advertisement focused only on the distribution of information contained a headline and lengthy copy.

The cue-emphasizing strategy used a campus celebrity to talk about the risk of HIV/AIDS. This advertisement used little information about HIV/AIDS, but introduced a star college football player to reinforce subjects' perception about the seriousness of HIV/AIDS.

The balanced-argument strategy was designed to balance message cues and information. The advertisement contained endorsement by an expert and detailed information about HIV/AIDS.

Pretests were conducted to test these four sets of advertisements with 30 seperate subjects. The differences in the four advertisements were confirmed by pretests. The pretests measured how differently each advertisement outperformed the designated intention compared other three advertisements. Subjects in the pretests received all four advertisements and rated each advertisement's intention to the characteristics of four advertisements such as the affect-evoking, information-orientation, cue-emphasizing, and balanced argument. Four one-way ANOVAs were conducted against four advertisements. All four advertisement showed significant differences between the intended effect and other characteristics.

Measures

Selection of stimulus materials. Subjects in each group received the four advertisements which were differentiated to reach different levels of enduring and situational involvement. After exposure to all advertisements, subjects were asked to select the most persuasive advertisement.

Evaluation of each advertisement. After selecting the most persuasive advertisement, subjects were asked to evaluate each advertisement using a 7-point scale (1= absolutely not persuasive, 7= very persuasive).

Analysis

Independent and dependent variables. The level of involvement was the independent variable. The primary dependent variable was the selection of advertisement (H1), and the secondary dependent variable was the evaluation of each advertisement(H2). This study merely adopted the selection and evaluation as the dependent variables. As an exploratory experiment for the theoretical hypothesis, this study emphasized more on the selection and self-assessment of the optimal advertising strategies rather than the differences of attitude and behavior change. The factorial design for the main and interaction effects was not conducted. Instead, analyses for categorical variables were employed to support the proposed model.

Analysis methods. The parameters of the model (H1) were analyzed with a simple chi-square method, and a logit loglinear model was used for investigating the relationship between the level of involvement and optimal strategies, and moderating effects of enduring and situational involvement. The logit loglinear model is used to testing the relationships between dependent categorical variables and independent categorical variables. Measures of association also were used to test the model adequacy. For finding the optimal strategy for each cell (H2), ANOVAs with Multiple Classification Analysis (MCA) were used.

Outcomes

Stability of Enduring involvement and Manipulation Check

The stability of the enduring involvement measure was tested by t-tests for differences between the high and low enduring involvement.

For the manipulation check of subjects' level of situational involvement, their felt involvement were measured by two seven-point scales after the experiment. Two scales were constructed by importance and involvement ("The message in the ad was important to me." "The ad did not have anything to do with me or my needs.") (Celsi & Olson, 1988). The reliability of two items was 0.95.

After the stability and manipulation check, both enduring and situational involvement showed significant differences between high and low subjects.

Hypothesis Tests

H1: Enduring involvement and situational involvement moderate the effect of strategies on a health behavior model.

To test H1, a chi-square test was used to measure the nature of associations between two categorical variables.

Insert Table 1 about here

Table 1 shows that the null hypothesis - that involvement variables and strategy effectiveness are independent - can be rejected ($\chi^2 = 17.12$, $p = 0.04$). But respondents in the low enduring involvement and high situational involvement found the affect-evoking strategy more persuasive than a cue-emphasizing strategy In the high enduring involvement and low situational involvement group, the balanced-argument strategy was selected as often as the information-oriented strategy This test also does not show the strength of the associations To quantify the strength of the relationship between two categorical variables, the logit loglinear model (Table 2) was employed (Norusis, 1994).

Insert Table 2 about here

While the loglinear model can examine the interrelationships among categorical variables, the logit loglinear analysis can model the relationship between one or more dependent categorical variables and independent categorical variables In this research, each level of involvement is an independent variable and each strategy is a dependent variable

H1 was generally supported The chi-square test showed the significant association Also enduring involvement and situational involvement as independent variables showed different strength respectively on advertising strategies Table 2 shows the parameter estimate summary Numbers are parameter estimate Lambda's and numbers in parentheses are parameter estimates

The logit loglinear model shows the moderating effects of involvement in the proposed health behavior model The parameters involving high enduring and situational involvement are set to 0, so they serve as the basis for comparison For example, the value of $e^{\hat{\lambda}}$ in the low enduring involvement and low situational involvement group and the affect-evoking strategy is 3.06. The affect-evoking strategy was selected almost 3.06 times more often by those in the low enduring and low situational involvement group than by respondents in the high enduring and situational involvement group ($e^{\hat{\lambda}} = 1$). In the high enduring involvement and low situational involvement group ($e^{\hat{\lambda}} = 2.08$), the information-oriented strategy was selected almost three times as often as in the low enduring and low situational involvement group ($e^{\hat{\lambda}} = 0.82$). From the parameter estimate summary (Table 2), we can assume the strength of relationship between two categorical variables. Also the moderating effects of involvement on optimal strategies can be interpreted.

H2a: An affect-evoking strategy is more effective for the low enduring and situational involvement respondents than in other involvement levels.

H2b: A cue-emphasizing strategy is more effective for the low enduring and high situational involvement respondents than in other involvement levels.

H2c: An information-oriented strategy is more effective for the high enduring and low situational involvement respondents than in other involvement levels.

H2d: A balanced-argument strategy is more effective for the high enduring and high situational involvement respondents than in other involvement levels.

H1 investigated the moderating effects of both enduring and situational involvement in the proposed health communication model through the logit loglinear model. H2 predicts the effectiveness of each strategy in each level of involvement using four one-way ANOVAs.

Insert Table 3 about here

With each level of involvement as a factor, Table 3 shows partial support for H2. All ANOVA models show significant differences (Table 3). In the multiple classification analysis (MCA), the modified LSD test was used. For each ANOVA, differences of means between different involvement groups are supported in only two levels of involvement. For H2a, ANOVA shows marginally significant differences between groups (F= 2.56, p=0.05). But no two different involvement group are significantly different at 0.05 significance level. For H2b, ANOVA shows significant differences (F= 4.009, p= 0.009). Based on the result of the MCA, three groups show significant differences between groups. The cue-emphasizing strategy was more effective among respondents in low enduring and high situational involvement group than in other groups. For H2c, ANOVA shows a significant difference between groups (F= 3.11, p=0.03). But no two different involvement group are significantly different at 0.05 significance level. For H2d, ANOVA shows a significant difference (F= 4.18, p= 0.007). From the result of MCA, all four groups show significant differences between groups. The balanced-argument strategy was more effective among respondents in high enduring and situational involvement than in any other groups.

Discussion

This research began by *recognizing individual differences in accepting health communication*. For example, let us assume that somebody is designing an Internet homepage to inform people of the risk of getting the common cold in the winter. How can the homepage designer know the involvement level of the expected respondents? If it is assumed that most respondents have low enduring and high situational involvement, what is the optimal strategy for that involvement category?

Very little research has been conducted to assess the effectiveness of health communication from the viewpoint of respondents who are the main subject of health communication. This research investigated sources of involvement as moderators of the communication process. From two dimensions of involvement, four optimal strategies were proposed: the affect-evoking, the information-oriented, the cue-emphasizing, and the balanced-argument strategy.

The results of the experiment generally are supportive of the relationship between the proposed health behavior model and optimal strategies. The H1 test shows the moderating effects of involvement in the proposed health behavior model. A chi-square test showed significant association between involvement and optimal strategies. But in the low enduring involvement and high situational involvement group, the affect-evoking strategy was more likely to be selected than the cue-emphasizing strategy. The affect-evoking strategy was likely to be selected by respondents in all four involvement level groups. These outcomes likely result from the sample selection. Respondents in this study are undergraduate students. They seem more responsive to the affect-evoking approach than other respondents do. Also in the high enduring and low situational involvement group, the balanced-argument strategy was selected as often as the information-oriented strategy. For those with high enduring involvement, the balanced-argument strategy is effective because information and a cue are balanced in this strategy. The logit loglinear model shows the moderating effects of involvement on optimal strategies. For example, the cue-emphasizing strategy is selected 9.58 times more than the balanced-argument strategy. The logit linear model does not show the exact parameters we expected. But generally, optimal strategies show high parameter estimates in their specific situation.

The H2 tests indicate the effectiveness of each optimal strategy in the designated involvement situation. Even though only the cue-emphasizing and the balanced-argument strategies were significantly different in effectiveness between groups, according to the MCA, all four ANOVAs for each strategy show the significant difference in the models. These results are in line with the previous outcomes of the chi-square and the logit loglinear model test.

Generally, the moderating effects of both enduring involvement and situational involvement are supported. Even though some deviations from the proposed model appeared, optimal strategies fit into the designated involvement level.

Compared to the ELM, this proposed model accounts for all cases of involvement and also explains the inconsistent cases of enduring and situational involvement such as high enduring and low situational involvement, and low enduring and high situational involvement. As for health behavior, this proposed model has more explanatory power than the ELM.

The outcomes of the experiment reported here clearly suggest that each health communication strategy has its maximum effectiveness when it is utilized in the designated involvement level. These results go back to the initial idea of Krugman (1965) that advertising can be effective even in the low involvement situation. Health campaigner must recognize the moderating effects of involvement in health communication. By employing this model, it is possible to deploy the different strategies for the different levels of involvement groups in the most effective way.

Suggestion and Limitation

These optimal strategies are not independent. In reality, these strategies can be used collaboratively or collectively to account for diverse respondents and involvement situations.

Differences of attitude and behavior change among different levels of involvement were not introduced in this research. In fact, the support of the proposed model by the selection and self-assessment is on a shaky ground because a mere analysis of association has a weaker explanatory power than the factorial design or the regression model. Based on the exploratory outcome in this study, the comparison of attitude and behavior changes using the factorial design or the regression model should be conducted to reinforce the competence of the proposed model in future study.

Also, this research did not clarify the consistency of attention, comprehension, attitude, and behavior after the role of involvement in health communication. Future research should test the health communication model using the structural equation model (Joreskog & Sorbom, 1993) to verify relationships between those variables.

The strengths and weaknesses of enduring and situational involvement were not discussed. It is assumed that situational involvement has a greater effect on attention and comprehension in health behavior than enduring involvement.

Subjective norms, described by Fishbein and Ajzen (1980), could be another factor in deciding an individual's behavior. But the possible relationship between attitude and subjective norms was not discussed in this research. Also, the relationship between involvement levels and subjective norms was not investigated because this study began with the ELM framework. However, the role of subjective norm does seem important in the comprehensive health behavior process, especially considering deviant behaviors by peer group pressure. The assumed health communication process including the role of subjective norms is depicted in Figure 4 for future study.

Insert Figure 4 about here

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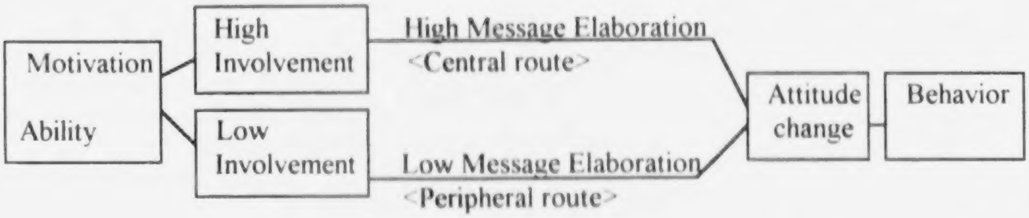

Figure 1.
The Elaboration Likelihood Model of Attitude Change (Petty & Cacioppo, 1983)

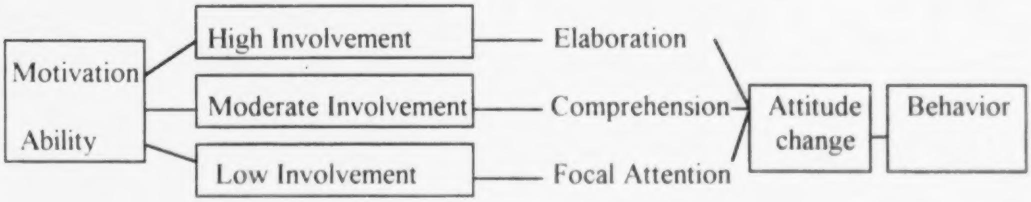

Figure 2

Diagrammatic Depiction of the Relevance-Accessibility Model in Case of Advertising Message Involvement (Baker and Lutz, 1996)

Situational Involvement

		Low	High
Enduring Involvement	Low	**Cell 1** *Affect-evoking Strategy*	**Cell 2** *Cue-emphasizing Strategy*
	High	**Cell 3** *Information-oriented Strategy*	**Cell 4** *Balanced-argument* Strategy

Figure 3
Diagrammatic Depiction of Proposed Health Communication Model and Optimal Strategies for each cell

Table 1

Crosstabulation and Chi-square Analysis for Involvement and Optimal Strategies

	Low EI High SI	Low EI High SI	High EI Low SI	High EI High SI	Total
Affect-evoking	14	14	8	8	44
Cue-emphasizing strategy	6	11	5	2	24
Information-oriented Strategy	2	5	9	5	21
Balanced-argument Strategy	7	6	9	13	35
Total	29	36	31	28	124

Note. Pearson $\chi^2 = 17.12$, $p = 0.04$

Table 2

Parameter Estimate Summary in a Logit Loglinear Model

	Affect-evoking Strategy	Cue -emphasizing	Information -oriented	Balanced -argument
Low EI Low SI	1.12 (3.06)	1.54 (4.66)	-.20 (0.82)	0 (1)
Low EI High SI	1.27 (3.56)	2.26 (9.58)	.73 (2.08)	0 (1)
High EI Low SI	.35 (1.42)	1.14 (3.13)	.89 (2.44)	0 (1)
High EI High SI	0 (1)	0 (1)	0 (1)	0 (1)

Note. EI = Enduring involvement

SI = Situational involvement

* Parameter estimate lambda (λ)

** Parameter estimate (e^{λ})

Table 3
ANOVAs for the means of each strategy in each involvement level

	Low EI High SI	Low EI High SI	High EI Low SI	High EI High SI	F	p
Affect-evoking (H2a)	6.10	4.97	5.38	5.00	2.56	0.05
Cue-emphasizing Strategy (H2b)	4.55^{a}	5.67^{b}	5.03	4.68^{c}	4.01	0.009
Information -oriented (H2c)	4.07	4.19	5.26	4.79	3.11	0.03
Balanced-argument Strategy (H2d)	4.62^{d}	4.53^{e}	4.61^{f}	5.71^{g}	4.18	0.007

Note.- The means between a-b and b-c indicate the significant differences between two groups from the modified LSD test.

- The means between d-g, e-g, and f-g indicate the significant differences between two groups from the modified LSD test.

- H2a and H2c have no difference between groups.

* 1-7 scale (From 1= Absolutely not persuasive to 7= very persuasive)

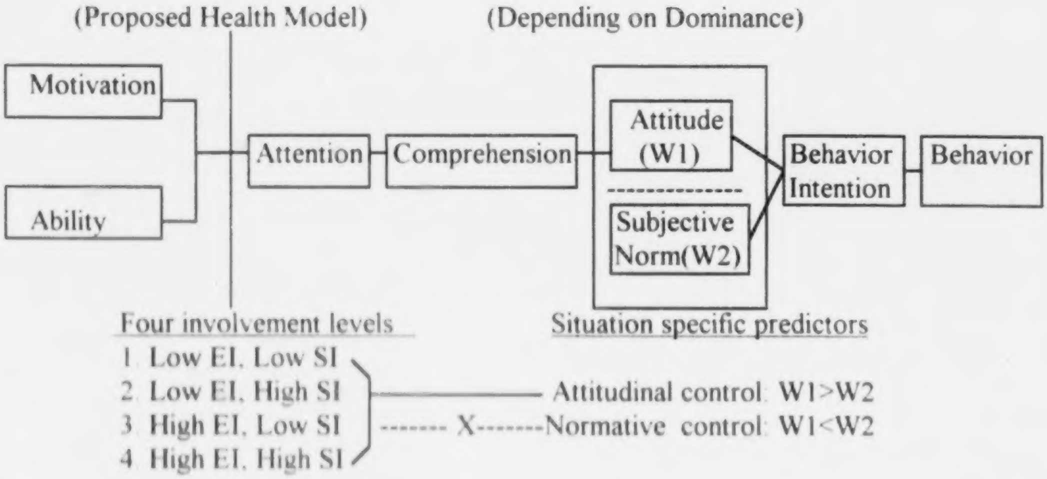

Figure 4
The assumed Health Communication Process and the Diagrammatic Depiction of the Comprehensive Health Behavior Change Process

The determinants of ethical values among communication researchers in academia and industry: A case of practice informing theory

by

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The determinants of ethical values among communication researchers in academia and industry: A case of practice informing theory

ABSTRACT

This study proposed to identify factors predicting core ethical values (beneficence, role conflict, integrity and confidentiality) among communication researchers in academia and industry. A survey of these two groups (395 vs 241) was conducted. The influence of path coefficients predicting ethical values was assessed using a regression model. Findings suggest that while the overarching determinants of ethical values were similar across groups, work conditions and practice led to differences. Beneficence was influenced by confidentiality mediated by integrity and role conflict.

Topics

Ethical values
Methodology
Communication research

The determinants of ethical values among communication researchers in academia and industry: A case of practice informing theory

INTRODUCTION

Standards of scientific research are subject to systematic erosion without the consistent practice of ethical codes. Observe the following. Researchers are constantly tempted to massage their data to tell a more persuasive story, to omit data so that their expectations are supported and/or to remeasure observations until they come out exactly right (Baillar, 1995). Others have justified the use of deception to obtain information in specific situations (Elms, 1982; Gallo, Smith & Mumford, 1973; Strickler, 1967; Strickler, Messick & Jackson, 1967). Recent revelations about unknowing patients being exposed to radiation in order to better understand the effects of a nuclear explosion have raised serious questions about the ethics of science and the ethics of research (Wheeler, 1994).

Unlike the interventions in medical research, the conduct of communication research often presents little or minimal risk to participants. However, can the unethical collection of data in risky or less risky research justify the goals of pushing back the frontiers of scientific enquiry? Can the lack of protection of human subjects, the deliberate inflicting of harm or suffering outweigh any benefits derived from the research? What are the ethical codes which guide communication researchers? Are there core ethical codes? What are the determinants of these ethical codes?

The present study proposes to focus on core ethical values in communication research. First, it reviews primary ethical values encoded in the principal social science disciplines to which communication acknowledges roots and/or affiliations. Next, it assesses the relevance of these values in communication research. Finally, it identifies the factors which predict these ethical values among communication researchers in academia and industry.

ETHICAL VALUES

The word *ethics* comes from the Greek *ethos* and refers to character, nature or disposition. Ethics has been defined as a branch of philosophy which focuses on the judgements of proper conduct and *ethical* connotes rules of behavior or conformity to a code of principles (Frankena, 1973, Reynolds, 1979). *Values* are expressions of that which is important (Steininger, Newell & Garcia, 1984) and *ethical values* are therefore important rules of behavior.

The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research was established by Congress in 1974. It proposed three values to resolve ethical dilemmas -- beneficence, respect and justice (1978). Beneficence is exemplified in the maximization of good outcomes such as new knowledge and more enlightened social policy (Sieber, 1982). In addition, it implies the avoidance of harm, injury or suffering. Respect means demonstrating concern for the autonomy of individuals and involving them as informed participants, fully aware of the parameters and consequences of the research. Justice was defined as the equitable distribution of costs and benefits (Sieber, 1982).

Psychologists, Reese and Fremouw (1984) assert that ethical science and ethical research are the cornerstones of scientific knowledge. On the one hand, the ethics of science are the normative rules which focus on protecting the integrity of data so that they are trustworthy, reliable and valid, and free from manipulation. Violations undermine science as a body of knowledge. However, the harm can be remedied through replication as new scientific truths correct the previous record. On the other hand, the ethics of research are the normative rules designed to protect human rights. These refer to the rights of research participants as well as of the public at large. Violations do not undermine science as a body of knowledge but they undermine society as a whole through the implications of the research findings (Reese & Fremouw, 1984).

Other psychological researchers have expanded on these concerns to include additional perspectives. Kimmel (1988) focused on problems of (1) scientific knowledge e.g. falsification, data manipulation and deception, (2) research participants, particularly their physical and psychological welfare and how to minimize risks, protect their privacy and rights, and (3) society, specifically how the application of research results can be beneficial as well as how certain groups can be protected from the consequences of the research. Data integrity and protection of human rights continue to be valued with the latter expanded to include reaping the benefits of research.

New ethical challenges have appeared on the psychological research front and researchers have suggested areas for further research. These have included privacy and confidentiality, institutional review boards, deception, debriefing, data sharing, and research on marginal populations, (Sieber, 1994). Others have called for the further discussion of guidelines for publishing research, uses and archiving of videotaped data, research with vulnerable populations, scientific misconduct and financial conflict of interest (Grisso, Baldwin, Blanck, Rotheram-Borus, Schooler & Thompson, 1991). The fact is that psychological researchers have an ethical code which provides standards for the conduct of research with human participants (APA, 1981).

Similarly, sociologists have ethical codes guiding their conduct of social research (ASA, 1982) and these parallel those of the psychologists. The former have endorsed the following principles to protect the interest of human participants -- autonomy, nonmaleficence (wrong to harm others), beneficence and justice (Beauchamp, Faden, Wallace & Walters, 1982). Among anthropologists, the physical, social and psychological welfare of participants studied must be protected above all else. Therefore, the protection of participants and populations being researched has the highest priority according to the ethical code of the American Anthropological Association (AAA, 1973).

The American Association of Public Opinion Research's code of conduct upholds the values of scientific competence and integrity, dissemination of research results, protection of respondent privacy and confidentiality, and the rejection of deceptive practices (AAPOR, 1977). Since research participants experience little risk in the survey interview, ethical discussions in public opinion research have focused less on research integrity and more on informing participants' consent and protecting their confidentiality (Presser, 1994).

The importance of these issues was reinforced by the role played by surveys conducted for litigation. To illustrate, in a survey to assess the dollar value of the damage caused by the *Exxon Valdez* oil spill, participants were not informed of the research sponsor at the beginning of the interview because of response bias (Presser, 1994). They were informed at the end which is a common practice in surveys. Participant confidentiality was harder to protect in the face of a court decision. When the survey data were subpoenaed by Exxon and its codefendants, despite arguments from the research firm, the data had to be turned over and confidentiality was violated in spite of the researchers' code (Presser, 1994).

Ethical judgements investigated in marketing and business research have focused mainly on confidentiality, research integrity, conflict of interest and beneficence in the form of sharing research results (Akaah, 1989; 1990). Conflict of interest arises when companies have financial structural relationships as well as working relationships (Akaah, 1989; 1990). The problems of fraud and misconduct have been analyzed further to differentiate between research competence and integrity, genuine error and outright fraud (Woolf, 1991).

In the area of university funded research, conflict of interest and the communication of information to others emerged as pivotal issues (Beauchamp, 1991). "Conflict of interest occurs whenever there exists a conflict between a person's private or institutional gain and that same person's official duties in a position of trust." (Beauchamp, 1991, p. 9). The problem surfaces when a researcher's main obligation, the advancement of knowledge, is sacrificed so that the flow of funds continue. Another obligation -- to communicate information in a timely way -- is often sacrificed because of arrangements with funding sources, results not fitting expectations or trending in another direction (Beauchamp, 1991).

In their development of ethical analysis elements, institutional researchers Rodriguez and Agrella (1989) discuss the following key concerns: voluntary participation, confidentiality, integrity, competence, fairmindedness (acknowledgement of one's biases and values), role conflicts, socially sensitive research and institutional politics.

Not much attention has been paid to ethical issues in the conduct of communication research. Four ethical issues have been identified for discussion: informed consent, deception, debriefing, and privacy (Greenberg & Garramone, 1989). These were examined primarily in an experimental research context. In an introductory communication research text, four ethical principles are listed as having relevance: autonomy, nonmaleficence, beneficence and justice (Wimmer & Dominick, 1991).

A recent study (McEuen, Gordon, Todd-Mancillas, 1990) focusing on research ethics in doctoral education, found that the top 5 research ethic issues addressed were: confidentiality of subjects, informed consent, beneficence, Institutional Review Board, and debriefing. Of the 46 programs surveyed, a majority (70%) offered a course which partly dealt with research ethics and in the course, ethics was discussed 15% or less of the time. In another teaching related study, researchers surveyed 138 advisers and examined five areas which may give rise to ethical problems in the advising of theses and dissertations: appropriation of student work, joint authorship, adviser input, reasons for student theses/dissertations, and informed consent (Schiff & Ryan, 1996).

CORE ETHICAL VALUES FOR COMMUNICATION RESEARCH

From a review of the foregoing, four core ethical values for communication research appear to be relevant -- beneficence, role conflict, integrity and confidentiality.

(1) Beneficence. The reason to disseminate research results and

benefit participants or society in the form of new knowledge or improved social policy is an intrinsic value in all the social science disciplines. The advancement of knowledge is a researcher's main obligation.

(2) Role conflict. Communication research encompasses research in educational institutions as well as in the media oriented industries. It covers both experimental and survey research approaches. As discussed earlier, conflict of interest may arise when university research is funded by outside sponsors. As well, role conflict may prevail in sponsor-funded commercial communication research where suppliers may have vested interests in media companies, or financial arrangements with sponsors.

(3) Integrity. As a cornerstone of scientific knowledge, this ethical value compels attention in communication research where there are no widely accepted ethical codes established by a professional communication research association. The trustworthiness of communication research data is dependent on the honesty of communication researchers and needs to be assessed.

(4) Confidentiality. This is one of the tenets of ethical research and because much of communication research involves human participants and minimal risk, the extent to which communication researchers will protect the confidentiality of participant data will be elucidating.

METHOD

A mail survey on research practices was conducted from April 22 through June 3, 1996 among two groups of researchers--academic communications researchers and industry communications researchers. A four-page 62-item questionnaire on research practices was mailed to 1400 randomly selected researchers (700 from each group).

Sampling. The sampling frame for academics comprised (1) membership in a major communication professional association -- the Association for Education in Journalism and Mass Communication -- screened for members' active research participation in the form of research credits in the association's corresponding communication journal and conference for the past three years, and (2) directors of research centers affiliated with educational institutions. Industry researchers were drawn from (1) lists of research and marketing research agencies screened for communications-related projects (advertising, public relations, television, radio, newspaper, magazine and other media), (2) the National Newspaper Association membership and (3) the research directors of the major television networks.

Pre- and post-survey notification postcards were sent as part of the survey procedure. The survey package included the questionnaire, a cover-letter assuring confidentiality and anonymity of responses, a business-return envelope and two first class stamps as incentives. The overall response rate was 50%

(60.1% for academic researchers and 38.5% for industry researchers).

Demographic characteristics of the two groups of researchers showed that while both groups were equally dominated by males (63.5% vs 66.8%), the academic communications research group was younger (43.3 years vs 48.1 years in age) and more highly educated (75.6% had doctorates vs 19.9%, and 99.7% completed post graduate degrees vs 65.1%) than the industry communications research group.

Measures. Four core ethical values were measured among both groups. These included, (1) beneficence, (2) role conflict, (3) integrity and (4) confidentiality. See Table 1 for a summary of the key variables and measurement items.

Beneficence. Two Likert-type scale items describing the responses of research organizations to share research results or expertise were indexed to obtain beneficence. The questions asked respondents how strongly they approved or disapproved of the lack of sharing of research results. The items were scored, summed and averaged so that high beneficence would be represented by high scores.

Role conflict. Five Likert-type scale items measuring selective reporting, omitting results which hurt sales, omitting methods, custom matching objectives with those of funders, and publishing research to get funding were indexed to obtain role conflict. The questions asked respondents how strongly they approved or disapproved of five statements. The items were scored, summed and averaged so that high conflict would be represented by high scores. The alpha reliability coefficient was .63.

Integrity. Five Likert-type scale items measuring error correction, refining hypotheses after statistical analysis, manipulating sample size for statistical significance, selective literature review, and inferring effects without a control group, were indexed to obtain integrity. The questions asked respondents how strongly they approved or disapproved of five statements. The items were scored, summed and averaged so that high scores reflected high integrity. Alpha was .48. This less than solid reliability coefficient may be attributed to the multidimensionality of the items.

Confidentiality. A single measure assessed respondents' approval or disapproval of turning over participant data when the researcher is served with a subpoena. A high score reflected the practice of high confidentiality.

Other variables. Five work conditions were tapped. These included Likert-scale items on research autonomy, compromises, pressures to obtain contracts/projects, ambivalence, support network and deadlines. The helpfulness (1-5 scale) of various sources of information to improve research practice was assessed. Sources listed conferences, publications, workshops, conversations with colleagues, working with other researchers professional association and books. A 3-point scale tapped interest in improving research practice or self improvement

(1=not at all, 3=very). The number of years conducting research and working in the industry was measured and whether respondents had taken a philosophy of science class (1=yes, 0=no).

Analysis. The mean scores of core ethical values were compared between the two groups of researchers using t-tests. Next, the determinants of beneficence were analyzed using hierarchical regression to estimate their respective path coefficients for each group. This statistical procedure was used to predict beneficence from role conflict, integrity, confidentiality, work conditions, sources of information and years of work. Three additional regressions were run to assess role conflict, integrity and confidentiality as mediating variables. Tests were set at the probability level of at least $p<.05$.

RESULTS

Table 2 reports the mean scores and t-tests for core ethical values among academic researchers and industry researchers. Both groups practice participant confidentiality equally. Academic researchers score higher on integrity and beneficence than their industry counterparts ($p<.001$) while the roles are reversed for role conflict ($p<.001$).

Table 3 reports the results of the four regression equations predicting (1) beneficence, (2) role conflict, (3) integrity, and (4) confidentiality for academic researchers. It lists the semi-partial correlation (sr^2) or unique proportion of variance explained by a specific independent variable, its beta weight (*Beta*), the correlation (*R*), and variance (R^2) for each of the final equations.

In the first regression, four variables were found to be significant in predicting beneficence. In step 1, role conflict was entered with the largest variance, ($sr^2 = .043$, $p<.01$). Confidentiality was the next significant determinant of beneficence ($sr^2 = .027$, $p<.01$) followed by autonomy ($sr^2 = .017$, $p<.01$) and deadlines ($sr^2 = .021$, $p<.025$). A total of 11% of beneficence was accounted for by the variables in this regression equation. Less conflict experienced seemed to enhance the sharing of results, increasing of new knowledge and improving social policy. Protecting participant confidentiality prompted beneficence.

In the second regression, two variables were found to be significant in predicting role conflict. In all, 15% of the variance was accounted for. Integrity was selected first with the highest unique proportion of variance explained, ($sr^2 = .14$, $p<.001$). In the next step, confidentiality was a significant determinant of role conflict, ($sr^2 = .01$, $p<.05$). When research integrity was high, role conflict was low.

The third regression with integrity as the dependent variable displayed two variables to significantly explain 4.5% of the variance. These included the interest in improving research practice and years in the industry ($sr^2 = .026$ to $.020$, $p<.001$ to $p<.025$). When academic researchers demonstrate interest in self improvement, they are likely to evince integrity. However, the fewer years they worked in the industry, the more likely they were to demonstrate research integrity which suggested that working in the industry corrupted research integrity.

The fourth regression with confidentiality as the dependent variable displayed one variable to significantly explain 1.3% of the variance. This was "talking with academics."

Table 4 reports the results of the four regression equations predicting (1) beneficence, (2) role conflict, (3) integrity, and (4) confidentiality for industry researchers.

Two variables were statistically significant in the first regression in predicting beneficence. In step 1, role conflict was entered with the largest variance, ($sr^2 = .035$, $p<.01$). Years in the industry was the next significant determinant of beneficence ($sr^2 = .042$, $p<.01$). A total of 7.6% of beneficence was accounted for by the variables in this regression equation. As among academic researchers, less role conflict experienced seemed to enhance the sharing of results, increasing new knowledge and improving social policy. The more years a researcher worked in the industry, the less beneficence s/he displayed.

In the second regression, integrity was the only variable to significantly predicting role conflict. In all, 11% of the variance was accounted for. In the presence of high research integrity, low role conflict results.

The third regression with integrity as the dependent variable yielded confidentiality as the single variable to significantly explain 7.4% of the variance, $p<.01$.

The fourth regression with confidentiality as the dependent variable displayed two variables to significantly explain 6% of the variance. This was taking a philosophy of science class and the years of working in research.

DISCUSSION

This study attempted to assess the contribution of various factors towards the development of core ethical values. The factors included working conditions, sources of information, interest in self improvement, years of working in research and in the industry. The findings suggest that the overarching determinants of ethical values were similar for the two groups of researchers. An appreciation for the positive benefits of research was stimulated by a concern to protect participant confidentiality mediated through a preoccupation with integrity and a reduction in role conflict.

Overall, in the context of sharing research results, ethical decision-making seemed to occur in four steps. Among academic researchers, the first step involves the stirring of participant protection through conversations with colleagues. This seems logical because ideas are optimally transferred through homophilous agents (Rogers, 1995). In the second step, concern for protecting confidentiality appears to be a factor fostering integrity. Interest to improve research practice also promotes the reliable and valid collection of data. The more years spent working in the industry, the more research integrity is undermined. In the third step, researchers are fueled by their integrity which translates into a lack of role conflict.

Finally, when researchers experience little or no conflict and few or no deadline pressures, they can turn their attention to promoting the good outcomes of research. Interestingly, another path to sharing the benefits of their work is through less autonomy. The path of ethical values is proposed as follows: Once academic researchers dialogue with their colleagues, they become more aware of confidentiality, are more concerned about honest and trustworthy research practices, can envision a clearer path without conflicts and can more vigorously pursue the advancement of knowledge.

Among industry researchers, a four-step path towards appreciating the good outcomes of research is similarly proposed. First, after years of working in research or inspired by a class in philosophy of science, researchers become sensitized to the protection of participant confidentiality. Next, imbued with the noble goals of protecting others, industry researchers, in keeping with their academic counterparts, practice honest research. This leads to more clearly defined roles and responsibilities as well as the absence of conflict. Advancing scientific truths and promoting the benefits of research follow naturally. The separate finding that sharing research results is linked to a fewer number of years spent in the industry suggests that working in the industry compromises this value. See Figure 1. This is not surprising in view of the fact that sharing research information is inconsistent with selling research information, the basic premise of successful industry research.

A limitation of the study of core ethical values is that the variances explained are relatively low (1.3 to 15%) suggesting that other factors may be better predictors of these ethical values. Another limitation is that the industry researchers may not be representative of their industry colleagues in view of the low response rate among this group. These focused results are not externally valid and await confirmation. A total of four core ethical values were selected for comparison across the two groups. Other values should be similarly examined.

For the present, the study's main contribution has been its analysis of mediating variables in the development of core ethical values. In doing so, it found that these values are conceptually linked and that the primary paths are similar for both groups. Variable work conditions and sources of information slightly modified the paths indicating that practice informs theory.

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Table 1. Summary of Key Variables and Measurement Items

Variables	*No. of items*	*Items*	*Reliability*
Beneficence	2	1. A research organization specializing in reaching minority targets declines to participate in a media advisory group which is planning a pro-social campaign among minorities. 2. A research institute refuses the request of of an inner city AIDS activist group for results of its state sponsored state-wide poll on AIDS prevention and behavior (1-5: 'strongly disapprove/approve')	
Role Conflict	5	1. A researcher selectively reports evidence to match the expectations of the client/ funder. 2. Research results that could hurt a company's sales are never made public. 3. Methods and procedures are never completely reported in any external report because they are trade secrets. 4. A researcher modifies research objectives to match the interests of her funding source. 5. A researcher publishes research to primarily attract new clients (1-5: 'strongly disapprove/approve')	.63
Integrity	5	1. A research organization policy states that even after a report has been issued, any errors in research findings will be updated. 2. A researcher refines the study hypotheses after conducting statistical analysis.	.48

Table 1. Summary of Key Variables and Measurement Items (Continued...)

Variables	*No. of items*	*Items*	*Reliability*
		3. After conducting initial statistical analysis, a researcher increases the sample size by 10 in order to achieve statistical significance.	
		4. A literature review includes only studies that support the theoretical argument a researcher wishes to advance.	
		5. Absence of a control group is not considered a limitation in inferring effects of a specific treatment. (1-5: 'strongly disapprove/approve')	
Confidentiality	1.	1. When served with a subpoena, a researcher turns over all data from a household survey including respondent identifiers. (1-5: 'strongly disapprove/approve')	

Table 2. Mean Scores and Results of T-Test for Ethical Values Among Academic and Industry Researchers

Ethical Values	Acad. Res. Mean (395)	SD	Ind. Res. Mean (241)	SD	df	T
Beneficence	2.55	.73	2.27	.88	578	4.01***
Role Conflict	2.17	.61	2.64	.73	566	8.24***
Integrity	3.14	.50	2.97	.60	488	3.37***
Confidentiality	3.19	1.04	3.03	1.17	614	1.76

Scale of 1-5 where 1 reflects a low score and 5 a high score.

*** $p<.001$.

Table 3. **Hierarchical Regression Coefficients Predicting Beneficence, Role Conflict, Integrity and Confidentiality among Academic Researchers (n=395)**

Predictor Variables	*Beneficence* *sr^2*	*Beta*	*p*
1. Role conflict	.043	-.18	.01
2. Confidentiality	.027	.18	.01
3. Research autonomy	.017	-.16	.01
4. Deadlines	.021	-.15	.025
	$R^2 = .11$ $R = .33^{***}$		

Predictor Variables	*Role Conflict* *sr^2*	*Beta*	*p*
1. Integrity	.14	-.33	.001
2. Confidentiality	.01	-.13	.05
	$R^2 = .15$ $R = .39^{***}$		

Predictor Variables	*Integrity* *sr^2*	*Beta*	*p*
1. Interest	.026	.16	.01
2. Years in industry	.020	-.14	.025
	$R^2 = .046$ $R = .21^{**}$		

Scale of 1-5 where 1 reflects a low score and 5 a high score.
Years=actual #.
*** $p<.001$, ** $p<.01$.

Table 3. Hierarchical Regression Coefficients Predicting Beneficence, Role Conflict, Integrity and Confidentiality among Academic Researchers (n=395) **(continued)**

Predictor Variables	*Confidentiality* *sr*^{2}	*Beta*	*p*
1. Talk with academics	.013	.11	.05
	$R^2 = .013$ $R = .11^{**}$		

Scale of 1-5 where 1 reflects a low score and 5 a high score.

*** *p*<.001, ** *p*<.01.

Table 4. Hierarchical Regression Coefficients Predicting Beneficence, Role Conflict, Integrity and Confidentiality among Industry Researchers (n=241)

Predictor Variables	*Beneficence* sr^2	*Beta*	*p*
1. Role conflict	.035	-.21	.01
2. Years in industry	.041	-.20	.01

$R^2 = .076$
$R = .28^{***}$

Predictor Variables	*Role Conflict* sr^2	*Beta*	*p*
1. Integrity	.11	-.33	.001

$R^2 = .11$
$R = .33^{***}$

Predictor Variables	*Integrity* sr^2	*Beta*	*p*
1. Confidentiality	.074	.27	.01

$R^2 = .074$
$R = .27^{***}$

Scale of 1-5 where 1 reflects a low score and 5 a high score.
Years=actual #.
*** $p<.001$, ** $p<.01$.

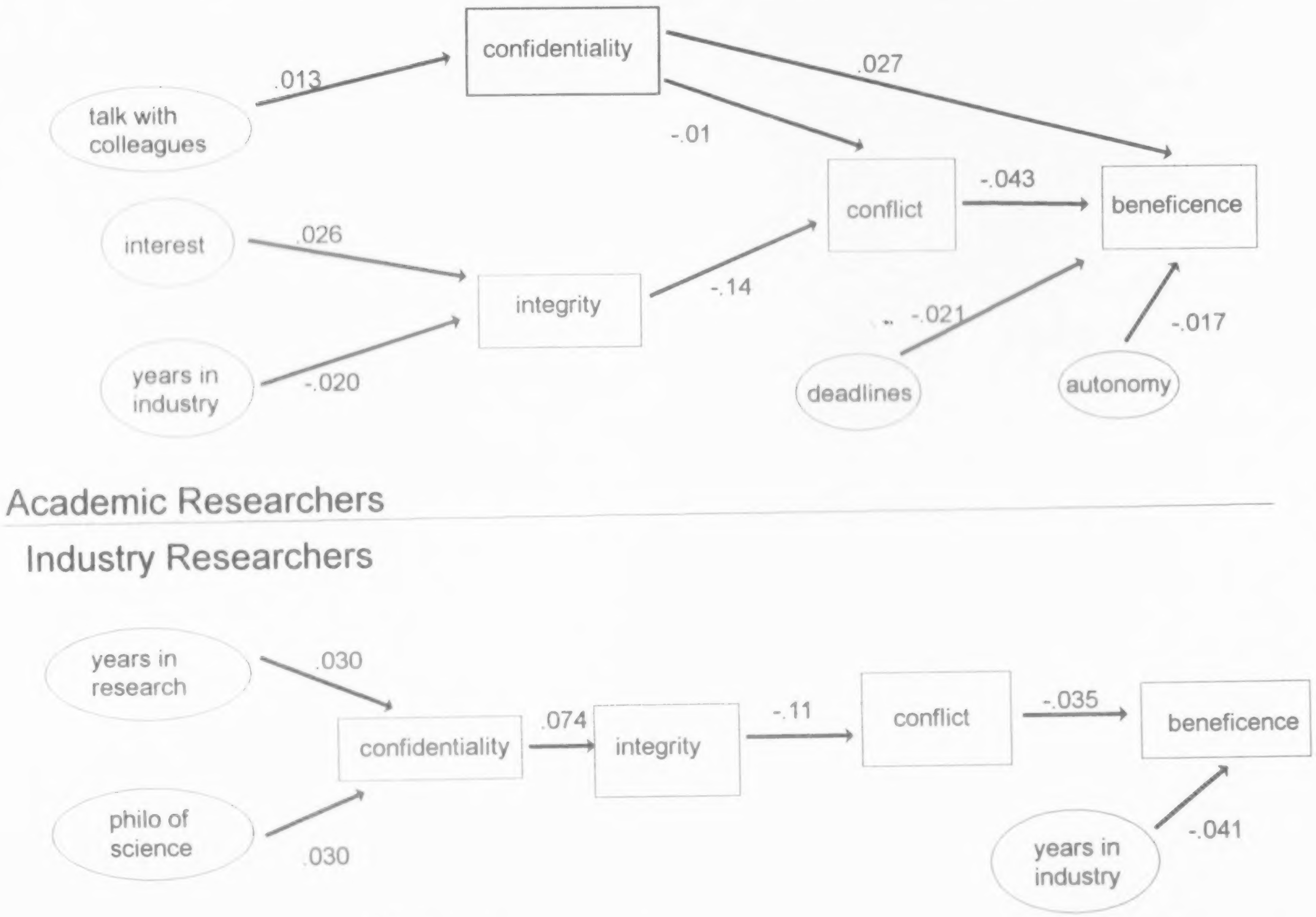
Table 4. Hierarchical Regression Coefficients Predicting Beneficence, Role Conflict, Integrity and Confidentiality among Industry Researchers (n=241) (continued)

	Confidentiality		
Predictor Variables	*sr^2*	*Beta*	*p*
1. Philosophy science class	.030	.17	.01
2. Years of research	.030	.17	.01

$R^2 = .06$
$R = .25^{***}$

For "philosophy of science," 1=yes, 0=no.
Years=actual #.
*** *p*<.001, ** *p*<.01.

Figure 1. Determinants of Core Ethical Values



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Academic Researchers

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The Impact of Motivated Information Processing Goals and Political Expertise on Candidate Information Search, Decision-Making Strategies, and Recall

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The Impact of Motivated Information Processing Goals and Political Expertise on Candidate Information Search, Decision-Making Strategies, and Recall

Abstract

An experiment was conducted to investigate how impression-driven on-line (systematic / evaluative) processing, impression-driven shallow (non-systematic / evaluative) processing, memorizing (systematic / non-evaluative) processing, and careless (non-systematic / non-evaluative) processing and individual difference in political expertise influenced the depth and the pattern of information search, decision-making strategies, and the amount of recall. The experimental results showed that while systematic information processing led to a deeper and within-candidate information search, a preference for a non-compensatory decision strategy, and a better recall, evaluative processing resulted in a shallower and across-candidate information search and a preference for a non-compensatory decision rule, but no beneficial effect on recall. Implications of the findings for research in mass communication, social cognition, and political science are also addressed.

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In this modern era, because of the advancement of communication technology, the amount of information circulating has increased significantly. In recent years, the emergence of the Internet has served as an additional medium in providing information to the public. In particular, during election campaigns, citizens are exposed to a considerable amount of information about major party nominees. Although recent studies of voting behavior have increasingly adopted a cognitive approach by examining how voters process the variety of candidate information, how extensive and in what ways people acquire candidate information has not received much research attention in political communication.

The process by which people select what information to attend to, to remember, and to use in making a decision is quite individualistic and subject to individual factors, such as motivations, interests, and needs. The role of motives in mass media use has been thoroughly investigated by communication researchers from a uses and gratifications perspective. Several motives for media consumption have been identified by researchers in this area, such as diversion, personal relationship, personal identity, and surveillance (McQuail, Blumler, and Brown, 1972). However, researchers (Blumler, 1979; Windahl, 1981) have decried the lack of gratifications-by-effects studies and have suggested gratifications researchers examine the associations between motives for media use and subsequent effects.

This study thus attempts to investigate how exposure motives influence the process by which people acquire candidate information. More specifically, this study develops a typology of four information processing goals along the dimensions of *systematic* versus *non-systematic* processing and evaluative processing (*evaluative* versus *non-evaluative* processing). With regard to the information-acquisition process, of particular interests of this study are the depth of information acquisition and the ways by which candidate information is acquired. This study is particularly interested in examining the extent to which people's information search tends to be within-candidate by acquiring various information about one candidate before processing information about another candidate or across-candidate by comparing several candidates on certain attributes. Furthermore, Lau and Redlawsk (1992) claim that previous political communication research fails to consider seriously the *decision rules* or *choice strategies* by which people combine the candidate information they have acquired in making their voting choice. As a result, this study will also examine the decision-making strategies people adopt to make their voting decisions, which could be inferred by their information-search pattern. In particular, two types of choice strategies, compensatory and non-compensatory, are the main interests of this study.

This paper starts with a review of the literature on information processing goals, in particular, on-line versus memory-based processing. A typology of information processing is then introduced. Next, a brief review of the literature on political expertise is presented. Two types of choice strategies, compensatory and non-compensatory, are then addressed. This paper then suggests a number of hypotheses. To test these hypotheses, an experiment was conducted. Lastly, the experimental results are presented. Discussions and implications of the findings are also addressed.

Literature Review

Motivation and Information-Processing Goals

The impact of motivated information processing goals on social information processing and person perception has been widely examined in social psychology during the last decade (e.g., Hamilton, Katz, & Leirer, 1980a and 1980b; Neuberg & Fiske, 1987; Srull, 1981; Srull, Lichtenstein, & Rothbart, 1985; Wyer & Gordon, 1982). In these studies, subjects were given instructions to anticipate an interaction with a target, form an impression of the target, memorize the information pertaining to the target, or compare the target information with the self.

Hamilton, Katz, and Leirer (1980a and 1980b) conducted one of the earliest investigations of person memory. They presented subjects with behavior statements related to four separate conceptual categories (interpersonal, intellectual, sports, and religious activities). Some subjects were given a "memory set" in which they were told to remember as much of the information as possible. Others were given a general "impression set" in which they were told to form a general impression of what the actor would be like. After receiving the information, all subjects were given a free-recall task. They found that although they were given a surprise recall test, impression set subjects recalled much more of the information than memory set subjects. Since then, a number of studies have yielded empirical evidence to support this phenomenon (e.g., Sedikides, Devine, & Fuhrman, 1991; Srull, 1981; Wyer & Gordon, 1982). As a consequence, including a memory-set-impression-set manipulation has become almost standard practice in subsequent person memory experiments.

Given that impression-set instructions typically lead to greater overall levels of recall, the researchers have questioned why such an effect occurs. They explain this effect mostly based on associative network models of person memory. According to such models (Hastie, 1980; Pryor & Ostrom, 1981; Srull, 1981; Srull & Wyer, 1989; Wyer & Carlston, 1979), behaviors or personality characteristics referring to a target person are represented in memory as nodes. These nodes are often expected to be linked to a central target node through a series of associative pathways (Sedikides, Devine, & Fuhrman, 1991).

Subjects who attempt to form a coherent impression of a target actively attempt to integrate various pieces of information. That is, they do not treat each new piece of information independently, but think about new information in relation to what is already known about the target person. It is suggested that when two or more pieces of information are considered together in working memory, an associative path between them is established. According to the associate-network theories, the associative paths that are established during encoding ultimately provide additional retrieval routes which would facilitate subsequent recall (Srull, 1981).

The impression and memory sets which have been widely used in social psychology research can be applied to examine political information processing and evaluations of political figures, since they parallel the two common motives for attending to political messages -- to form impressions of political candidates and to learn information about candidates. Political scientists have identified two types of political-information processing, "on-line" processing and "memory-based processing" (Lodge, McGraw, & Stroh, 1989, p. 400 - 401), which are similar to the impression set and memory set. Next section will discuss these two types of information processing.

On-Line Versus Memory-Based Processing

The distinction between impression-driven on-line processing and memory-based processing in political psychology was first proposed by Lodge, McGraw, and Stroh (1989) in understanding the processes by which candidate evaluations are made.

According to Lodge, McGraw, and Stroh (1989), impression-driven on-line processing occurs when judgments are made in response to spontaneous encounters with relevant information. They proposed that people keep an "evaluation counter" or "judgment tally" (Lodge et al., 1989, p. 401) of each candidate and update that summary evaluation when new information is encountered. As a result, when exposed to new information, people can simply retrieve the evaluation counter from memory, update this summary tally, store the new value in long-term memory, and forget the actual evidence that contributed to the evaluation.

On the other hand, when judgments are memory-based, individuals have to retrieve relatively concrete evidence from long-term memory and then compute a summary evaluation in order to render a judgment. The information flows from long-term memory into working memory rather than directly from the external environment. Since individuals have to retrieve concrete evidence from long-term memory, Hastie and Park (1986) pointed out that memory-based judgments are usually more effortful than on-line judgments.

Systematic versus Non-Systematic and Evaluative versus Non-Evaluative Processing

A number of researchers have proposed models in delineating the impact of information processing on attitude change. Most of the models such as Chaiken's heuristic-systematic model (in Chaiken, Liberman, & Eagly, 1989) and Petty and Cacioppo's (1986) Elaboration Likelihood Model (ELM) differentiate systematic processing (or central route) from heuristic processing (or peripheral route) in understanding the basic processes underlying persuasion. The central route of processing or systematic processing is characterized by extensive issue-relevant thinking, careful scrutiny of message arguments, and consideration of other issue-relevant materials. In contrast, heuristic processing or the peripheral route processing implies that people determine the acceptance of recommended arguments by relying on simple heuristic cues such as "experts can be trusted," "majority opinion is correct," and "long messages are valid messages."

Based on those researchers' conceptualization, both impression-driven on-line information processing and memory-based information processing could be considered as types of systematic processing, because the tasks require subjects to process messages thoroughly to form an impression or to memorize information. The difference between these two is that, in on-line processing, subjects process information with an evaluative goal, whereas, in memory-based processing, subjects do not process information with an evaluative goal.

However, social psychologists and political scientists have overlooked other less careful information processing conditions. During election campaigns, not every eligible voter is interested in politics. Some individuals may not want to pay attention to candidate information to evaluate candidates or to learn their issue positions, even when the information is available to them. How individuals process information when they are not attentive to candidates information is not well-known.

This study thus attempts to explore how individuals search candidate information differentially under conditions in which *systematic versus non-systematic* processing and *evaluative versus non-evaluative* goals are manipulated. Social psychological research has yielded numerous findings on the distinctions between systematic and non-systematic processing and between impression formation goal and memorizing goal, but inter-relating these two distinctions has not yet been done. Combining these two distinctions in terms of two coordinates helps map out the main kinds of candidate information processing which occur during election campaigns. More importantly, on-line processing conflates both systematic and evaluative processing. It is thus unclear that the effects attributed to on-line processing in previous research resulted from systematic processing or evaluative processing.

Figure 1 presents the four information processing goals along systematic versus non-systematic and evaluative versus non-evaluative processing. As can be seen, systematic information processing with an evaluative goal is Lodge, McGraw and Stroh's (1989) impression-driven on-line processing by which individuals are presented candidate information and attempt to evaluate candidates simultaneously when they examine the information. Systematic information processing without an evaluative goal is understood as typical memory-based processing by which individuals carefully examine candidate information in order to memorize it, but do not attempt to evaluate candidates. Non-systematic information processing with an evaluative goal is called "impression-driven shallow information processing" by which individuals evaluate candidates without carefully considering the relevant information. Finally, non-systematic information processing without an evaluative goal is identified, in this study, as "careless information processing" by which individuals are not motivated to examine candidate information carefully and do not attempt to evaluate candidates.

Besides the information processing goals, individual-level variables such as expertise and needs are considered important factors in influencing the extent to which people engage in systematic information processing. The role of political expertise in political information processing and voting preferences has been widely discussed by political psychologists. This study will take this individual difference into account and examine its impact on information search and decision-making strategies.

Political Expertise and Information Processing

Political psychologists have shown considerable interest and ingenuity in studying the effects of prior knowledge (see Lau & Sears, 1986, for example). In discussing the difference between experts and novices in information processing, Lau and Erber (1985) suggest that experts and novices differ from each other not only in the amount of knowledge they have, but also in the ways they "structure and organize it in memory" (p. 38). Krosnick (1990a) suggests that experts tend to view a set of information in terms of large organizing patterns, whereas novices tend to view each piece of information in isolation from the rest. In addition, experts tend to represent information at a deeper, more principled level in terms of broad categories, whereas novices tend to represent information at a more superficial level based on surface features. Moreover, experts spend a great deal of time analyzing a problem qualitatively before deciding which solution strategy to implement, whereas novices plunge quickly into a problem by applying mechanical strategies with little forethought about their potential for success. Experts also have more domain-relevant knowledge and they learn new information more quickly and easily than do novices.

Expertise also affects how people recall (i.e., store and retrieve) information. Much research in political cognition (Fiske, 1986; Fiske, Kinder, & Larter, 1983; Lau, 1986) has shown that whereas the general public remembers schema-relevant information and tends to forget irrelevant information, political experts remember both schema-inconsistent as well as schema-consistent information. Fiske, Kinder, and Larter (1983) examined the recall of political experts and novices who had read an article about the political institutions in a country previously unknown to them and found that the knowledgeable individuals used their greater encoding abilities to recall more information than did the novices. Experts were also shown to recall more information that was inconsistent with their prior expectations.

Measures of Information Acquisition

Payne (1976) and Jacoby and his associates (1976) developed various measures to describe information acquisition, including depth of search, content of search, and sequence of search. Search depth refers to the amount of information accessed from the available information environment. Some common measures include the total number of items of information accessed and the time taken to arrive at a decision. Content measures refer to just what information is required.

With regard to sequence measures, one frequently used procedure for describing search relies on the "transition analysis" approach first presented by Jacoby et al. (1976). These measures focus on the change in alternatives and attributes from the acquisition of any one item of information to the next. Since this study is interested in political candidate information search, the types of transitions that are possible can be defined as follows:

	Type	Description
1.	Same-candidate, Same-attribute	immediate reaccessing the same item of information
2.	Across-candidate	seeking the same information about different candidates
3.	Within-candidate	seeking different information about the same candidate
4.	Different-attribute, Different-candidate	seeking different information about different candidates

In within-candidate processing, multiple attributes of a single candidate are considered before information about a second candidate is processed. In contrast, in across-candidate processing, the values of several candidates on a single attribute are processed before information about a second attribute is processed. Russo and Dosher (1983) and Hogarth (1987) suggest that across-candidate processing, or examining each alternatives across attributes is cognitively easier.

Choice Strategies: Compensatory and Non-compensatory

Decision makers are assumed to be selective and hardly use all the available information. Researchers in decision making propose that information search is not random (Jacoby, et al., 1987). On the contrary, they suggest that people select information in a few systematic ways. Hogarth (1987) classified different strategies or decision rules into two groups: (1) strategies that confront the conflicts inherent in the choice situation; and (2) strategies that avoid the conflicts. Conflict-confronting strategies are compensatory. In the compensatory model, a negative evaluation or low value on one criterion can be balanced, offset, or compensated by a positive evaluation or high value on another. In using this decision-making strategy, individuals process a great deal of information in assessing an alternative's overall value.

In contrast, non-compensatory strategies are conflict-avoidance strategies which do not allow tradeoffs (Hogarth, 1987). With non-compensatory strategies, a positive evaluation on one attribute cannot compensate for a negative evaluation on another. Thus, trade-offs may not be made explicitly when individuals place greater emphasis on some particular salient attributes rather than on an alternative's overall worth.

A related aspect of choice strategies is the degree to which the amount of processing is consistent or selective across alternatives. That is, is the same amount of information examined for each alternative, or does the amount vary? In general, it has been assumed that more consistent processing across alternatives indicates a more compensatory decision strategy (Hogarth, 1987; Payne, 1976). Consistent processing involves examining the same amount of attributes for each alternative. A more variable (selective) processing pattern, on the other hand, indicates a non-compensatory decision strategy by which the amount of information used to assess different alternatives varies.

Hypotheses

Drawing on previous research in social cognition and political psychology, hypotheses about effects of information processing goals and political expertise and their interactive influence on information search depth and patterns, decision-making strategies, and recall are proposed.

Main effects of systematic information processing goals

First, a number of persuasion models such as the ELM (Petty & Cacioppo, 1986) postulate that when subjects are motivated or are capable of engaging in systematic information processing, they will carefully scrutinize the arguments presented before they decide whether to accept the advocated position. Following this assumption, it is thus predicted that people with a systematic processing goal will conduct a deeper information search by accessing more information and spending more time searching information than with a non-systematic processing goal.

H1: People's information search will be deeper when processing information with a systematic goal rather than with a non-systematic goal.

H1a: People with a systematic information processing goal will acquire more individual items of information than will those with a non-systematic information processing goal.

H1b: People with a systematic information processing goal will spend more time on searching information than will those with a non-systematic information processing goal.

Resulting from their deeper information search, people with a systematic processing goal should therefore be able to exhibit a better recall. It is assumed that such a relatively extensive information-encoding process should lead to more associative paths linked among pieces of information. In contrast, people who process information in a less systematic way do not examine messages carefully and the messages stored in their memory should be relatively scattered. As a result, their amount of recall should be reduced.

H2: People with a systematic information processing goal will recall more information than will those with a non-systematic information processing goal.

Main effects of evaluative goals

When people are asked to form a global impression of candidates, the information they access consecutively should be centered around the candidates. That is, they will first access information about one candidate to form an impression; then, they will access information about another candidate. This method of information search is assumed to facilitate their candidate evaluation task. Lau (1995a) also suggests that information search in on-line processing is within-candidate to facilitate the updating of the running tally, although he did not test this hypothesis in his studies.

H3: When processing information with an evaluative goal, people are more likely to conduct an within-candidate information search than will people with a non-evaluative goal.

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Next, a specific task to form evaluations is assumed to help guide people's information search. Therefore, when processing information without an evaluative goal, people's information search should be in a relatively random manner or variant, compared to those who process information with an evaluative goal. Based on the previous research (e.g., Payne, 1976; Lau & Redlawsk, 1992; Lau, 1995b), a variant search indicates a non-compensatory decision strategy. It is therefore predicted that people's decision strategy tends to be non-compensatory when processing information without an evaluative goal.

H4: When processing information with a non-evaluative goal, people tend to adopt a non-compensatory decision strategy, compared to those who process information with an evaluative goal.

The results of previous research (Srull, 1983; Sedikides, Devine, & Fuhrman, 1991) have shown that impression-set subjects recalled more of the information than memory-set subjects. Subjects with a goal to form an impression retrieve more pieces of information because of the more richly interconnected associative network that is established during encoding. For memory-set subjects, individual pieces of information are unlikely to be thought of in relation to that target person and therefore fewer associative paths could be formed. Consistent with previous research findings, a main effect of evaluation goals is predicted:

H5: People with an evaluative goal will recall more information than will those with a non-evaluative goal.

Interactive effects of systematic and evaluative goals

In memory-based processing, people are instructed to memorize as much of the information as possible. With this instruction, it is speculated that they should spend more time on each piece of information they have accessed for trying to memorize it. In the impression-driven on-line processing condition, since people's task is to form an impression, each piece of new information they encounter is used to update their prior summary evaluation. As a result, they can stop their information search whenever they think they have formed a solid impression. In addition, it is likely that when they access some piece of information that is consistent with their prior impression, their processing of this information will be shallower, or they will spend less time on that piece of information. Based on this reasoning, it is predicted that subjects in memory-based processing will engage in a deeper information search than will those in impression-driven on-line processing.

H6: People's information search in memory-based processing (systematic without evaluation processing) will be deeper than in impression-driven on-line processing (systematic with evaluation processing).

H6a: People in memory-based processing will acquire more individual items of information than will those in impression-driven on-line processing.

H6b: People in memory-based processing will spend more time on searching information than will those in impression-driven on-line processing.

Main effects of political expertise

While some researchers suggest that political experts have greater encoding abilities, whether or not experts will process more information than novices is unclear. On the one hand, prior knowledge can facilitate information encoding. On the other hand, it can help in deciding which information is relevant. Johnson and Russo (1984), for example, showed that consumers who were more familiar with automobiles actually remembered less information about a set of new cars than did those who were moderately familiar with cars. This, they hypothesized, was because the more familiar consumer immediately identified much of the information as irrelevant, knowing which attributes were more predictive of product performance. If so, then, we should find that political experts will search for less information than those less knowledgeable, letting previous knowledge replace extensive search. With the same logic, Lau and Redlawsk (1992) also hypothesized that political experts' information search is less deep, but no significant effect was found.

H7: Political experts' information search will be shallower than political novices'.
H7a: Political experts will acquire fewer individual items of information than will political novices.
H7b: Political experts will spend less time on searching information than will political novices.

The effect of political expertise on information search pattern, either within-candidate or across-candidate, is also unclear. Lau & Redlawsk (1992) suggest that, in reality, there are relatively few candidates, varying on many different attributes, so an across-candidate search across the few candidates is easier than an within-candidate search across many attributes. They reasoned that political experts would better realize that an across-candidate search strategy is more efficacious and should thus display a relatively greater preference for across-candidate over within-candidate search sequences. Following their reasoning, we expect:

H8: Political experts will show a greater preference for an across-candidate search than will political novices.

Regarding the effect of political expertise on the use of compensatory or non-compensatory decision strategy, since political experts possess greater cognitive abilities and since compensatory decision making is more effortful, we thus predict that political experts will be more likely than novices to use compensatory decision strategies. This hypothesis has been tested in Lau and Redlawsk's (1992) study and was supported.

H9: Political experts will be more likely to use compensatory decision strategies than will political novices.

A number of studies suggest that political experts, because of their greater encoding abilities, are able to recall more information than novices are (e.g., Fiske, et al., 1983). Therefore, we predict:

H10: Political experts will recall more information than will political novices.

Method

To test the hypotheses, an experiment with a 2 (effort: systematic versus non-systematic information processing goals) by 2 (evaluation: evaluative versus non-evaluative information processing goals) by 2 (political expertise: expert versus novice) between-subjects factorial design was conducted in a computer laboratory. Subjects were randomly assigned to one of the four goal conditions and their political expertise was post-experimentally measured.

Sample

One hundred and fifty-seven college students, eighteen years of age or older, participated in this study. There were slightly more females than males (55% females).

Information-Board Method and Computer Scenario

This study used the information-board method which was first used in 1970s by Payne (1976) and Jacoby and his associates (Jacoby, 1975; Bettman & Jacoby, 1976; Jacoby, Chestnut, Weigle, & Fisher, 1976) in their research to determine what information individuals acquire in making a choice. With this method, an information board with a M x N matrix displaying the value of each alternative (the columns of the matrix) on each attribute (the rows) is presented to subjects.

Taking advantage of modern computer technology, decision making researchers have increasingly used computers to store the entire external information environment and display information in that environment. Subjects are required to use computer mice to indicate what piece of information they want to access. In this way, computers can record the entire processes of respondents' information search (e.g., Chestnut & Jacoby, 1980; Hoyer & Jacoby, 1983; Jacoby, Mazursky, Troutman, & Kuss, 1984; Payne, Bettman, & Johnson, 1993). This method reduces human labor and errors in tracing the entire process of information search.

For the present study, a computer scenario was created to simulate the flow of information during primaries. Six candidates -- three Democrats and three Republicans named John Wilson, Mack Walker, and Brian Hiebert -- were created and designed to appear realistic. Most of the candidates' issue positions were consistent with their party affiliation. For candidates from the same party, their positions were varied from conservative (liberal) on some issues to moderately conservative (liberal) on some other issues. The personality traits for each candidate were balanced between negative and positive traits. The scenario displayed five types of information about the candidates: (1) positions on 11 issues, including abortion, affirmative action, crime, education, environment and energy, foreign policy and defense, gun control, health care, immigration, social welfare, and taxes; (2) background information such as family, education, prior jobs, military service record, and religion; (3) personality; (4) campaign activities; and (5) poll results.

The candidate information was displayed in a M x N matrix format. Because there was too much information to fit onto a computer screen, a two-stage format was used. Figure 2 presents the main menu with candidates' names in columns and attributes on rows and Figure 3 illustrates the options available to subjects after selecting one candidate's issue positions. Subjects were free to click their computer mouse on any cell to acquire the information contained in that cell. Each cell that subjects clicked served as **one item of information** searched, such as "John's Personality," "Mack's Background," and "Brian's position on abortion." Each item (cell) of information could contain more than one piece of information. For example, each candidate's background information contained his gender, age, education, marital status, and working experiences and each candidate's campaign activities entailed several activities. After reading that information, subjects could move to the initial stage, the main menu (shown in Figure 1), in which they could select to acquire any other item of information.

Subjects in all conditions were told that there was no time limit. Whenever they were ready to vote (or quit the scenario), they could click on the "Ready to Vote" (in the on-line and impression-driven shallow processing conditions) or "Quit" (in the other two non-evaluative processing conditions) button at the bottom of the computer screen.

This computer program had four versions in order to induce subjects to adopt one of the four information processing goals, but all versions contained the same information about the six candidates and a questionnaire measuring their recall, political expertise, and background variables such as gender. Subjects' every act during their information search and their responses to all questions were recorded by computers.

Measurement of Independent Variables

Manipulation of information-processing goals. The information-processing goals were manipulated by informing subjects of the task they were required to accomplish in this study. For impression-driven on-line processing, subjects were asked to evaluate the political candidates who were competing for their parties' nominations for the 13th Congressional district in the city and make a subsequent voting decision. For memory-based processing, they were told that this study required them to memorize as much of the political information as possible and afterwards to take a recall test. In the impression-driven shallow information processing condition, subjects were asked to evaluate the political candidates who were competing to be their parties' nominees to run for the Congress in a distant state and make a subsequent voting choice. They were emphasized that their voting choice was not important. In the careless information processing condition, subjects were instructed to evaluate the user-friendliness of this computer program.

Political expertise. This study used a political knowledge scale to indicate the level of political expertise. A set of 13 questions about current local, national, and international affairs was utilized. Such a measure has been demonstrated to be both valid and reliable in a number of previous studies (e.g., Fiske, Lau, & Smith, 1990; McGraw & Pinney, 1990; Zaller, 1990). Responses to all questions were scored as a simple dichotomy with 0

= incorrect and 1 = correct. A political knowledge scale (M = 7.01, SD = 3.44 N = 157) was constructed by summing the number of correct responses (Cronbach's α = .85, Guttman's *lambda* = .86). This scale ranged from 0 to 13 and the median was 7. A dichotomous measure of expertise was created by splitting the scale at the midpoint. Subject with scores above the midpoint were classified as experts, whereas those with scores lower than 7 were identified as novices (expert M = 10.17; novice M = 4.33; t[155] = -20.10, p < .0001). After this classification, the final sample had 85 political novices (54%) and 72 political experts (46%).

Measurement of Dependent Variables

Depth of information search. Following Payne's (1976) and Jacoby et.al.'s (1976) measurement, this study selected two measures to indicate the depth of information search: (a) total number of individual items of information accessed, and (b) total time spent on searching information. The total number of information items searched was indicated by the total number of cells on the information menu subjects clicked by their computer mice to obtain information. To measure how long subjects accessed information, computers began counting the time (in seconds) when the main information menu was first time shown on the computer screen and stopped counting when subjects clicked on the "Ready to Vote" (in the impression-driven on-line and shallow processing conditions), or "Quit" (in the other non-evaluative processing conditions) button. Thus, the total time spent on searching information was the total number of seconds subjects spent on accessing information.

Search pattern (across-candidate or within-candidate). This study used the procedures developed by Jacoby et al. (1976) to analyze each information search act. Every transition from one item of information to the next was recorded by the computer program. A transition from one attribute to another attribute for the same candidate was coded as a within-candidate move. A transition from one candidate to another candidate for the same attribute was coded as an across-candidate move. A transition from one attribute for a candidate to another attribute for another candidate was coded as a different attribute / different candidate move or shift. For each subject, the proportion of and across-candidate search moves was calculated by dividing the total number of moves for each type of search by the total number of search moves.

Next, to infer that a subject's search tended to be within-candidate or across-candidate, an index using Payne's (1976) formula was computed. Let the total number of within-candidate transitions be N(candidate) and the number of across-candidate moves be N(attribute). Payne's index is then the ratio [N(candidate) - N(attribute)] / [N(candidate) + N(attribute)]. This index is equal to 1.00 if N(attribute) = 0, and equals -1.00 if N(candidate) = 0. If there are equal numbers of both types of transitions, the index equals 0.0. In this way, a positive index value indicates that the within-candidate search dominates over the across-candidate search, and a negative index value indicates a dominant across-candidate search.

Search consistency / variability (compensatory versus non-compensatory decision-making strategies). The measure of search consistency or variability was first designed by Payne (1976) to represent the extent of compensatory processing and has been used in studies of Billings and Marcus (1983), Klayman, (1983), Lau and Redlawsk (1992; Lau, 1995a, 1995b), and Schkade and Kleinmuntz (1994). Following Payne's (1976) measurement, the total number of information items accessed for each of the three candidates was first calculated. Then, the standard deviation of these three numbers was computed for each subject. If the standard deviation was zero, that meant that the same amount of information was searched for all three candidates. This constant research pattern would indicate a compensatory decision-making strategy. If the standard deviation was greater than zero, that meant that the amount of information searched was variant across the three candidates. In other words, it indicated that a subject searched more information for one candidate, but searched less information for another candidate. In this way, it was assumed that that subject adopted a non-compensatory decision-making strategy.

Recall. Free recall is an important dependent variable in most person perception studies (e.g., Hastie & Park, 1986; Sedikides, Devine, & Fuhrman, 1991; Srull, 1983) and candidate appraisal studies (e.g., Lodge, McGraw, & Stroh, 1989; McGraw, Lodge, & Stroh, 1990; Rahn, 1993). It is assumed that what subjects recall reflects what was in their memory and was subsequently used to make future judgments. In this study, subjects were given a free recall task. They were told to type anything they could remember about the candidates. Subjects were told that they could use as much time as they needed and that they did not need to worry about spelling or grammar. Subject's recall protocols were coded. Total pieces of information subjects correctly recalled were computed for each subject.

Other measures

Goal manipulation checks. In order to determine the extent to which the four types of information-processing goal were successfully induced, 13 statements were used. After subjects quit the election scenario, they were asked to read each statement carefully and indicate the degree to which it applied to them on a seven-point scale ranging from "did NOT apply to me" (1) to "Definitely applied to me" (7). To guard against response set, some questions were reverse-worded. These statements are presented in Appendix A.

Results

Goal Manipulation Checks

A principal component factor analysis with oblique rotation on the 13 items yielded three factors with eigenvalues greater than 1.00 which together accounted for 74.2 percent of the item variance. Factor one combined the items which were designed to check the extent to which subjects engaged in systematic information processing. Factor two combined the items which were designed to check the extent to which subjects processed the political information with an evaluation purpose. Factor three, which only accounted for 8 percent of item variance, included items of memorizing information. A series of t-tests were performed on these three factors and on each of the 13 items to check if the intended information processing goals had been successfully adopted.

All t-test results indicated significant mean differences between groups on the three factors and 13 items. Therefore, the manipulations of different information processing goals were considered successful.[1]

Information Search Depth

The depth of subjects' information search was indicated by 2 measures: (a) total number of information items accessed, and (b) total time spent on accessing information.

Total items of information accessed. A two (effort) by 2 (evaluation) by 2 (political expertise) analysis of variance (ANOVA) conducted on the total number of information items accessed revealed several significant effects: main effects for these three factors and two two-way interactions, one between effort and evaluation and the other between evaluation and expertise. No significant three-way interaction effect was observed. Table 1 presents the group means.

The results showed that people in the systematic information processing conditions (on-line and memory-based processing), on average, accessed 27 more items of information ($M = 38.64$) than did those in the non-systematic information processing conditions (impression-driven shallow and careless processing) ($M = 11.09$) ($F(1, 149) = 185.92$, $p < .0001$). Hypothesis 1a, which predicted that people with a systematic information processing goal would examine more individual items of information than would those with a non-systematic information processing goal, was thus supported.

Regarding the main effect of evaluative processing, it was observed that people without an evaluative goal (careless and memory-based processing) accessed more items of information ($M = 28.82$) than did those with a goal to evaluate the political candidates ($M = 22.25$) ($F(1, 149) = 11.06$, $p = .001$). This finding was not predicted initially. There also existed a main effect of expertise with political experts examining more items of information than political novices ($F(1, 149) = 4.80$, $p = .03$). Experts accessed a mean total of 29.71 items while novices provided a mean of 21.58. Thus, hypothesis 7a, which predicted that political experts would examine fewer individual items of information than would political novices, was rejected.

A significant interaction effect between systematic and evaluative processing ($F(1,149) = 16.52$, $p < .0001$) illustrated in Figure 4 indicated that, when people were motivated to examine the candidate information carefully, they accessed more items of information when they processed the information without an evaluation purpose ($M = 47$ for memory-based processing) than when they had an evaluative goal ($M = 31.61$ for on-line processing). On the other hand, when people were motivated to examine the information shallowly or carelessly, the amount of information they accessed did not differ much by whether they processed the candidate information with an evaluation purpose or not ($M = 11.95$ for impression-driven shallow processing and $M = 10.14$ for careless processing). Therefore, hypothesis 6a predicting that people in the memory-based processing condition would examine more individual items of information than would those in the on-line processing was supported.

A significant interaction effect between evaluation and expertise, which was not predicted originally, was also observed ($F(1, 149) = 4.68$, $p = .032$). An examination of the plotted cell means displayed in Figure 5 revealed that the amounts of items accessed by political experts and novices did not differ much ($M = 23.78$ for experts and $M = 20.86$ for novices) when they were motivated to process the candidate information with an evaluative goal, whereas when they did not receive the evaluation task, on average, political experts examined 15 more items of information ($M = 37.13$) than did novices ($M = 22.34$).

Total time spent on searching information. The ANOVA conducted on the total seconds of time subjects spent on accessing information revealed several significant effects: main effects for effort and evaluation, and one two-way interaction between effort and evaluation. No three-way interaction effect was found. Group means are presented in Table 2.

The results showed that people in the systematic information processing conditions (on-line and memory-based processing) spent more time on accessing information ($M = 787.02$) than did those in the non-systematic information processing conditions (impression-driven shallow and careless processing) ($M = 182.37$) ($F(1, 149) = 159.48$, $p < .0001$). On average, subjects processing the candidate information systematically spent 605 more seconds than did those processing information shallowly or carelessly. Hypothesis 1b, which predicted that people with a systematic information processing goal would spend more time on searching information than would those with a non-systematic information processing goal, was thus supported.

The evaluative goal was found to exert an influence on the information search depth. People without an evaluative goal (careless and memory-based processing) were found to spend about 272 more seconds on accessing information ($M = 639.73$) than those with a goal to evaluate the political candidates ($M = 367.96$) ($F(1, 149) = 30.75$, $p = .001$). In addition, although it was observed that political experts spent approximately 123 more seconds ($M = 560.86$) than did novices ($M = 437.96$) on information seeking, this difference was not significant ($F(1, 149) = .73$, $p = .40$). Thus, hypothesis 6b, which predicted that political experts would spend less time on searching information than would political novices, was not confirmed.

The presence of the significant interaction effect between effort and evaluation ($F(1, 149) = 27.44$, $p < .0001$) indicated that the effect of evaluative processing depends on the presence or absence of the systematic processing goal. Figure 6 displays the plotted group means. As can be seen, among people who processed the candidate information systematically, those who did not receive the evaluation task (those in the memory-based processing condition) spent more time on accessing information ($M = 1077.65$) than did those who received the evaluation task (those in the on-line processing condition) ($M = 542.64$), whereas the amount of time spent by subjects who processed information non-systematically did not substantially differ by the presence or absence of the evaluative goal ($M = 175.83$ and 189.64, respectively). Therefore, hypothesis 6b predicting that people in the memory-based processing condition would spend more seconds on searching information than would those in the on-line processing condition was supported.

Information Search Pattern

Group means of the within-candidate search index are reported in Table 3. The ANOVA results revealed significant main effects for the two types of processing goal, but no significant main effect for political expertise and no significant interaction effect between variables were observed.[2]

An unanticipated main effect of systematic processing was found. As seen in Table 3, people with a systematic processing goal exhibited a greater preference for a within-candidate information search (M = .40) than did those with a non-systematic processing goal (M = .11) (F(1,148) = 8.84, p = .003).

Moreover, the data showed that people with a goal to evaluate the political candidates were *less* likely to conduct a within-candidate search (M = .11) than were those without such a goal (M = .43) (F(1, 148) = 10.62, p = .001). Thus, hypothesis 3, which predicted that people who processed information with an evaluative goal were more likely to conduct an within-candidate information search than were those with a non-evaluation goal, was rejected.

No significant effect of political expertise was observed. As a result, hypothesis 8, which predicted that political experts would show a greater preference for an across-candidate search than would political novices, was not supported. However, the means are in the predicted direction with political experts' mean (M = .20) being lower than political novices' (M = .31), which suggests that political experts' information search pattern appeared to be more across-candidate.

Decision-making strategies (compensatory versus non-compensatory decision-making strategies)

The decision-making strategy subjects adopted to make their voting decision was indicated by the extent of their information search consistency or variability. It is assumed that a constant search pattern -- accessing the same amount of information across the three candidates -- indicates a compensatory decision-making strategy, whereas a variant search pattern indicates a non-compensatory decision making strategy. Table 4 reports the mean standard deviation of the total items of information accessed across the three political candidates across goal conditions and political expertise. An ANOVA revealed significant main effects for effort and expertise and one significant interaction between effort and expertise

The systematic processing goal and expertise were observed to have had an impact on the extent of information search consistency. As can be seen in Table 4, subjects who were motivated to process the candidate information systematically tended to conduct a more variant information search, which suggested a non-compensatory decision-making strategy (M = 2.47), compared with those who were motivated to process the information shallowly or carelessly (M = 1.45) (F(1,149) = 14.08, p < .0001). This finding was not predicted originally. Moreover, opposite to our expectation, political experts' information search appeared to be more variant than novices' (M = 2.49 and 1.54, respectively) (F(1, 149) = 10.41, p = .002), suggesting political experts' greater tendency of adopting a non-compensatory decision rule. Hypothesis 9, which predicted that political experts would be more likely to use a compensatory decision strategy than would political novices, was thus rejected.

No significant effect of the evaluative goal on subjects' information search consistency was found. Hypothesis 4, which predicted that when processing information without an evaluative goal, people tended to adopt a non-compensatory decision strategy, compared with those who processed information with an evaluative goal, could not be supported. However, an examination of the group means presented in Table 4 showed that the means are in the predicted direction with a higher mean in the non-evaluative goal conditions, suggesting that people's information search pattern was more consistent (M = 1.93) when they processed the information with an evaluative goal than when they did so without an evaluative goal (M = 2.04).

More importantly, the ANOVA results revealed an interaction between effort and expertise which was not predicted initially ($F(1, 149) = 4.77$, $p = .03$). Figure 7 presents the plotted group means. As the figure illustrates, when subjects were motivated to process the candidate information shallowly or carelessly, political experts and novices did not differ much on the extent of their information search consistency or variability (M = 1.60 and 1.36, respectively). However, when they were motivated to process the candidate information carefully, political experts were more likely than novices to conduct a variant information search, suggesting a non-compensatory decision-making strategy (M = 3.08 and 1.78, respectively). In other words, while processing information carefully, political experts tended to access different amounts of information across the three political candidates, whereas political novices tended to search approximately equal amounts of information across the candidates.

Recall

Group means of total pieces of information correctly recalled are given in Table 5. An analysis of variance yielded two significant main effects for the two types of information processing goal and one significant interaction effect between them.

An advantageous effect of the systematic information processing goal on recall was observed. Subjects who were motivated to process the candidate information carefully, on average, recalled 17 more pieces of information than did those who were motivated to process the information shallowly or carelessly (M = 23.42 and 6.28, respectively) ($F(1, 149) = 88.76$, $p < .0001$). Therefore, hypothesis 2, which predicted that people with a systematic information processing goal would recall more information than would those with a non-systematic information processing goal, was supported.

The effect pattern of the evaluative goal observed was contrary to our expectation. Subjects without an evaluation goal while processing the candidate information recalled *more* pieces of information than did those with an evaluative goal (M = 19.49 and 11.32, respectively) ($F(1, 149) = 17.98$, $p < .0001$). Hypothesis 5 predicting that people with an evaluative goal would recall more information than would those without an evaluative goal could not be supported.

The interaction effect reflected in Figure 8 provides a clearer picture to explain why people without the evaluation task could recall more pieces of information than could those with the evaluation task. As Figure 8 shows, after processing the candidate information shallowly or carelessly, people with an evaluative goal (in the impression-driven shallow processing condition) ($M = 7.23$) could recall two more pieces of information than could those without an evaluative goal (in the careless processing condition) ($M = 5.22$), although the difference was not large. On the other hand, in the two systematic processing conditions, people without the evaluation task (in the memory-based processing group) ($M = 33.38$) recalled about 18 more pieces of information than did those who received the evaluation task (in the on-line proeessing condition) ($M = 15.05$). This effect pattern suggests that the better recall observed in the non-evaluative groups (memory-based and careless processing conditions) actually resulted from the memory-based processing group.

The findings did not provide evidence to support the predicted advantage of political expertise on recall. While political experts have been shown in past research to profess greater cognitive ability and recall more information than novices, this finding was not replicated in the present study. An examination of the means showed that the means are in the expected direction with political experts recalling more pieces of information ($M = 16.35$) than novices ($M = 14.08$), but the differences were not statistically significant ($p > .95$).

Discussion and Conclusion

One of the most important conclusions to be drawn from this study is that motivations play a more important role than cognitive ability in the process by which people acquire candidate information. While a number of significant effects of motivativated information processing goals were revealed by the data of this present investigation, many of the predicted main effects of political expertise were not supported.

One striking finding is that political experts conducted a deeper information search than did novices by accessing more items of information. Political scientists (e.g., Krosnick, J., 1989) have noted that political expertise represent not a single quality, but a constellation of several attributes, such as interest in political affairs, exposure to political information, and involvement in political activities. It is likely that experts' deeper information search resulted from their interests in political affairs rather than their prior knowledge. If this is the case, then, one important conclusion drawn from this study is that people who are active in acquiring candidate information are those who are interested in politics. Those who are not interested in politics do not turn out to be active information seekers. This raises a problem with regard to the educational function of mass media. During election campaigns, those who are not interested in politics and do not have prior knowledge are those who need to be educated. However, they are not active information seekers, even though they need to be.

While past research (e.g., Fiske, Kinder, & Larter, 1983) provided strong evidence to support experts' abilities in retaining more information, both schema-consistent and schema-inconsistent, in their memory, this effect pattern was not replicated here. It was likely that the power of political expertise was attenuated by the manipulated information processing goals. Overall, the data provided strong evidence with regard to the power of motivated information processing goals on subjects' information search and recall. It could be speculated that the deficiencies of novices or/and the advantages of experts in terms of their encoding capacities were balanced by motivations. If this is the case, the results indicate that individuals' motivations can transcend individual differences in cognitive abilities. That is, no matter if individuals are experts or novices, as long as they have the motivation to process media messages carefully, novices and experts could perform equally well in storing and retrieving information. Future research in political communication should not overlook the power of motivations on information processing.

With regard to the role of motivated exposure goals, this study offers valuable extensions to previous research through conceptualizing different kinds of information processing goals along the dimensions of systematic and evaluative processing. The experimental results suggest that systematic processing exerts its influences differentially from evaluative processing. The data indicate that while systematic information processing goals led to a deeper, more variant, and within-candidate information search, and a better recall, evaluative processing goals resulted in a shallower, more variant, and across-candidate information search, but no advantegeous effect on recall, demonstrating the importance of distinguishing between systematic information processing and evaluative information processing.

On-line processing which was widely used in past person perception and candidate evaluation studies actually conflates both systematic and evaluative processing. As a result, it is unclear that the effects observed and attributed to on-line processing in past research resulted from systematic processing or evaluative processing. By differentiating evaluative processing from systematic processing, this study presents a clear picture about the differences between these two types of information processing.

Some social cognition researchers (Cohen, 1981; Wyer and Srull, 1980) have attempted to address the mechanisms underlying the process by which goals influence information processing. They have suggested that goals influence information processing through activating mental schemas. Following their reasoning, Reeves, Chaffee, and Tims (1982) suggest conceiving motivations for media exposure as different goal schemata. According to them, for example, the need to gain information may be consist of a series of directions about how to perceive important features of people, behaviors, or events as opposed to an entertainment goal schema that might focus attention on humorous people and situations or specific incidents instead of on the whole story. They propose that the application of different goal schemas during processing could affect what information is attended to, stored, and used.

Another essential and surprising finding revealed by the data is that evaluative processing did not generate a better recall. Further interaction effects demonstrated that those in the memory-set recalled more pieces information than did those in the impression-set. This finding is contrary to the one observed in past person memory research (e.g., Devine, Sedikides, & Fuhrman, 1989; Hamilton, Katz, & Leirer, 1980; Sedikies, Devine, & Fuhrman, 1991) which demonstrated that memory instructions produced lower levels of recall than impression-formation instructions in both single-target and multiple-target settings.

This discrepancy may be explained based on the elaboration model of person memory that has been proposed by Klein and Loftus (1990). Their model argues that a number of the enhanced memory effects obtained in the person memory literature are not necessarily due to the formation of associative links between the items of information presented about a person. Rather, certain types of tasks may lead people to elaborate extensively on each of the stimulus items presented, thereby rendering these items more accessible in memory. An analysis of the average time spent on each item of information provides some support for this explanation. Subjects in the memory-based processing condition spent an average of 23.73 seconds on each item of information, whereas subjects in the on-line processing condition spent 17.02 seconds on each information item ($t(1,77) = -5.32$, $p < .0001$).

Implications for Future Research

The present investigation provides exciting results and has several important theoretical and methodological implications for research in mass communication, social cognition, and political science.

First, this study provides empirical evidence to support the uses and gratifications approach's proposition that audiences are not passive information receivers (McLeod and Becker, 1981). This study suggests that audiences are selective in processing political information. However, although a number of motives has been identified by uses and gratifications researchers, their investigations narrowly focused on broad categories of motives for selecting media sources, rather than exploring the role of more specific motives. This study manipulated four specific information processing goals and provided strong evidence that these motives exerted differential impact on a number of dependent variables. As a result, future research should certainly attempt to develop more specific motives and explore their role in information acquisition, processing, and interpretation.

Secondly, this study used computers to record subjects' entire information-seeking processes. Although this method created a relatively artificial environment, it captures the real "dynamic" process of information seeking and provides reliable data about subjects' information selection and attention paid to the candidate information. Uses and gratifications researchers have relied heavily on self-reports of exposure, attention, and motives (e.g., McLeod and Becker, 1983; Becker, 1976), which have been criticized as invalid measures of internal processes (Garramone, 1985). Future research in investigating the relationship between motives and information processing may employ multiple methodologies to measure or manipulate audience motives and to assess the relationships between exposure motives and outcomes.

The findings of this study has also important implications for knowledge gap research (Tichenor, Donohue and Olien, 1970) by suggesting that motivations could decrease the gap. The present research reveals that those who were more active in acquiring the candidate information were political experts, but the knowledge gap between these two groups was not observed. The strong impact of information processing goals and the relatively weak impact of political expertise on the amount of recall observed in this study suggest that motivation is an important factor to narrow the knowledge gap. Research incorporating motivated information processing goals could provide a new perspective for examining how motivation and social economic status contribute to the knowledge gap widening or narrowing.

Another important implication of the present research is the need to conceive the various specific information processing motives within a broader theoretical framework. This study develops a typology of four different information processing goals along two dimensions, systematic versus non-systematic and evaluative versus non-evaluative processing, and provids strong evidence that evaluative processing influenced information acquisition strategies in ways different from systematic processing. Although past person memory research in social psychology has systematically investigated several specific information processing goals (i.e., forming impressions, memorizing, comparing the target person to the self, looking for verbs), those motivated encoding objectives seemed separate and independent from one another in those studies. In fact, it is likely that some of these goals operate via similar cognitive and psychological mechanisms, but differ on some other dimensions. Future research on the impact of information processing goals on social information processing and social judgment-making should need to address these specific information processing goals in a broader theoretical context to build robust theories.

The present study suggests that political scientists, while investigating voting behavior, need to take people's purpose of consuming candidate information into account. The data of this study indicate that, even though a lot of information about political candidates is available to audiences, if they don't want to pay attention to it, no matter whether they are experts or novices, they will gain nothing or little knowledge about candidates, which may make them vote for someone they don't know well. Traditional voting research usually asked subjects to read the stimulus candidate information carefully to make a voting choice and ignored the fact that people may not want to follow political news because of a lack of interest or a lack of trust in government, or other reasons unknown to this study. In the present research, four different goals were manipulated. We are not sure which goal is the most common during real election campaigns, but we think that careless and shallow processing should be suitable to those who are not interested in politics.

Finally, this study found that when people processed the candidate information carefully, they tended to adopt a within-candidate information search to compute the overall value of each candidate, whereas when people processed the candidate information shallowly, they tended to adopt an across-candidate search by comparing the candidates on some attributes. These findings have important implications for campaign message design. It is possible to predict that while using television and radio to acquire information about candidates, people are more likely to adopt an intra-attribute search, whereas while using newspapers, people are more likely to adopt an intra-candidate search, because television viewing and radio listening usually require less cognitive effort than newspaper reading. If this is the case, in designing newspaper advertisements, candidates should focus on their qualities. In designing television ads or radio ads, on the other hand, candidates should compare themselves with other candidates, that is, demonstrate their strengths and others' weaknesses. Future research in this field may examine if different message designs evoke different information processing and search patterns, which in turn influence subsequent candidate evaluations.

Overall, the present research has provided exciting results to demonstrate how different information processing goals along the continuums of systematic and evaluative processing and individual difference in political expertise affect people's candidate information search depth, search patterns, decision-making strategies, and recall. Based on the experimental results, this study suggests potentially productive avenues for researchers across the fields of mass communication, social cognition, and political science in investigating information consumption. One of the most interesting and provocative aspects of the present research is that it challenges researchers to theorize various information processing goals with some underlying cognitive and/or psychological mechanisms to provide theoretical insights into the issue of how different information processing goals exert their influences. This study also calls for researchers' attention to examine the dynamic process of information seeking to advance our understanding of mass communication processes and effects.

Notes

1. Due to the space limit, detailed statistical results cannot be presented here. Details could be requested from the authors.

2. Two additional measures were used to access people's information search pattern: proportion of within-candidate search moves to all search moves and proportion of across-candidate search moves to all search moves. The ANOVA results on these two measures are similar to those on the index measure. Since the index measure is a linear combination of these two measure and the ANOVA results are similar, results on the index measure were presented here.

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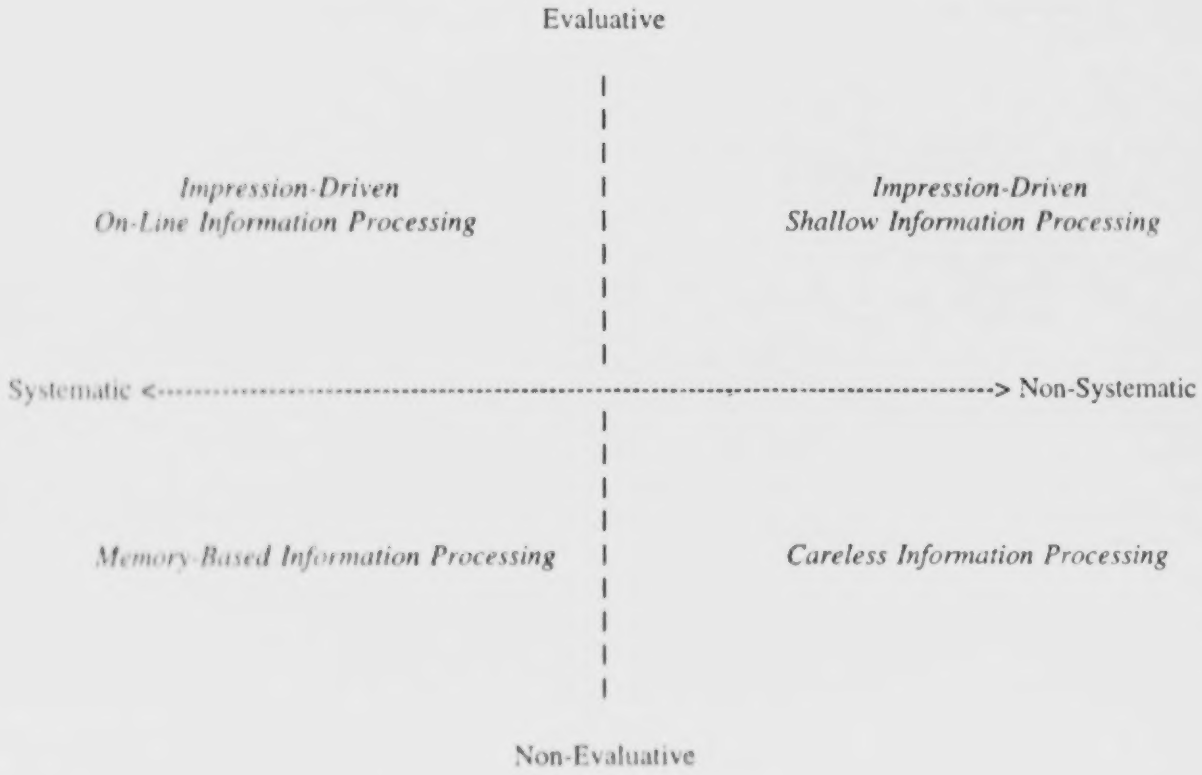
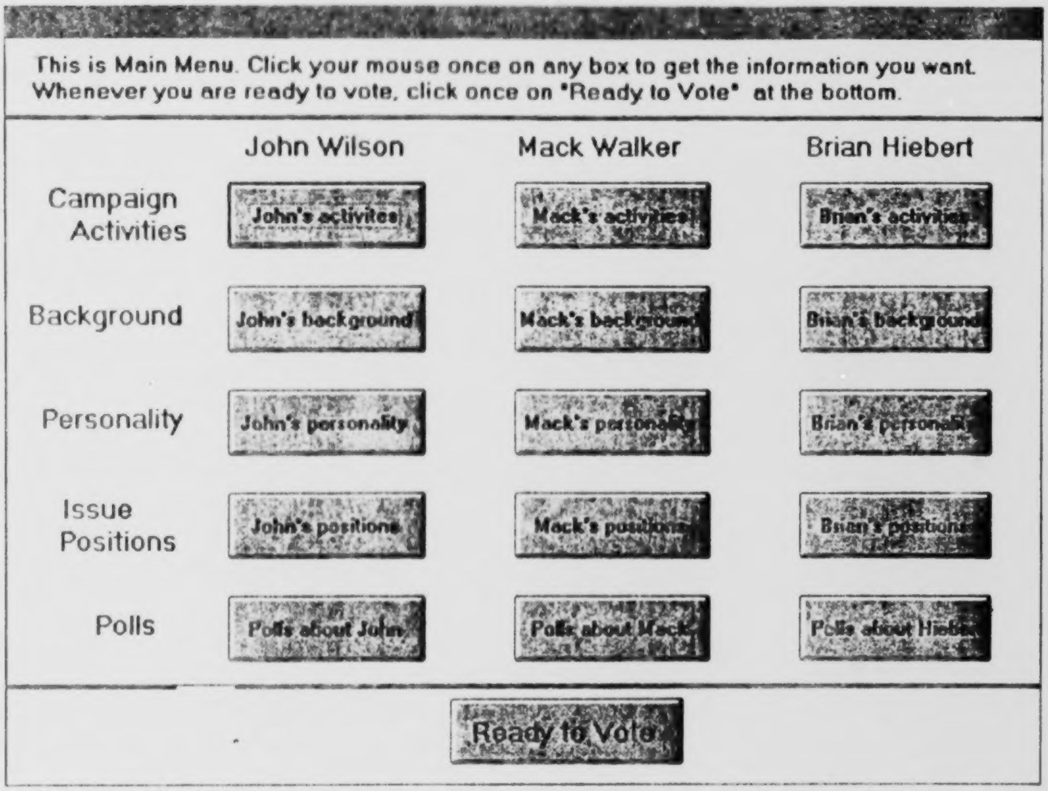

Evaluative
Impression-Driven On-Line Information Processing
Impression-Driven Shallow Information Processing
Systematic
Non-Systematic
Memory-Based Information Processing
Careless Information Processing
Non-Evaluative

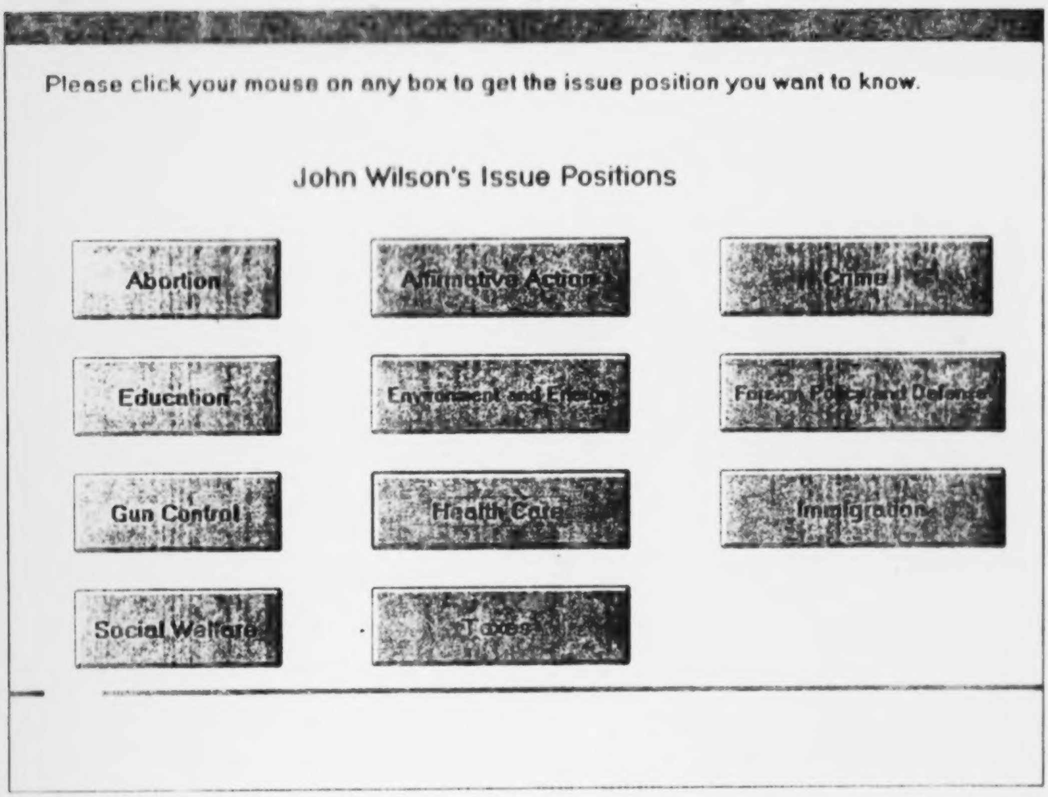
Figure 1. Typology of Audience Information Processing



This is Main Menu. Click your mouse once on any box to get the information you want. Whenever you are ready to vote, click once on "Ready to Vote" at the bottom.

Figure 2. Main Information Search Menu

BEST COPY AVAILABLE



Please click your mouse on any box to get the issue position you want to know.

John Wilson's Issue Positions

Figure 3. Information Search Menu for Issue Positions

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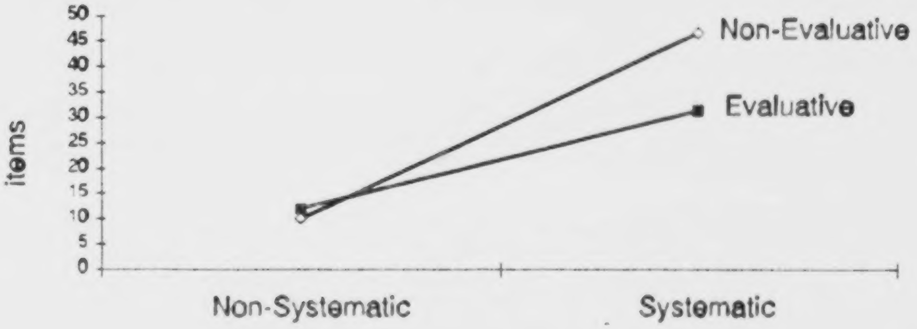

Figure 4. Total Items of Information Accessed by Effort and Evaluation

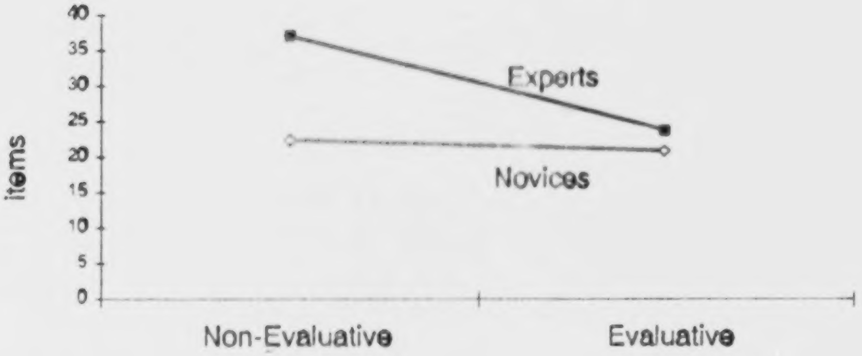

Figure 5. Total Items of Information Accessed by Evaluation and Expertise

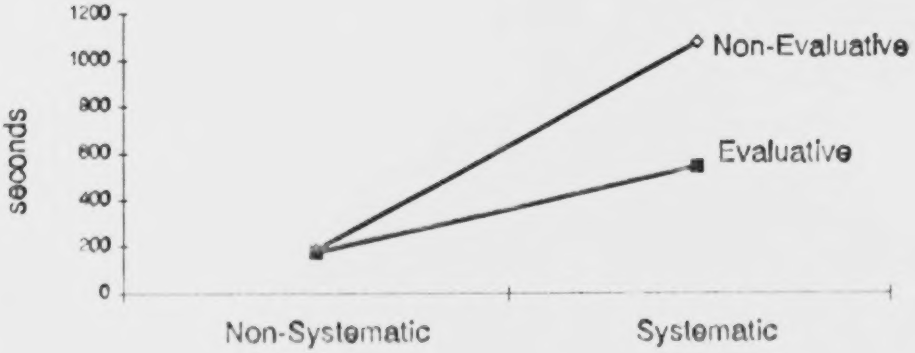

Figure 6. Total Time Spent on Searching Information by Effort and Evaluation

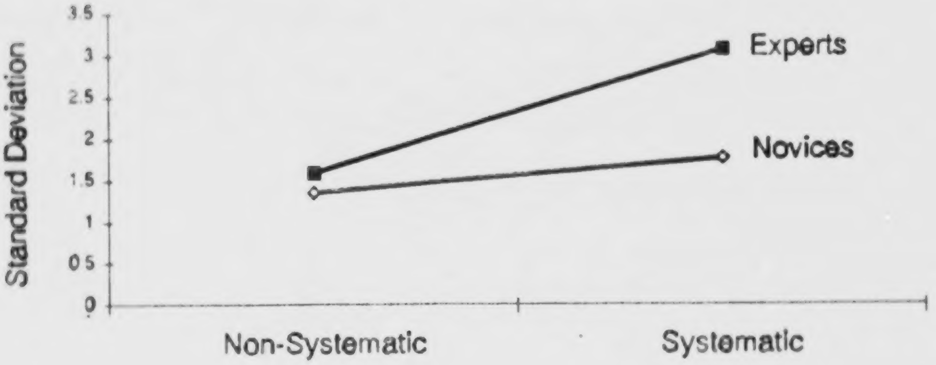

Figure 7. Search Variability by Effort and Expertise

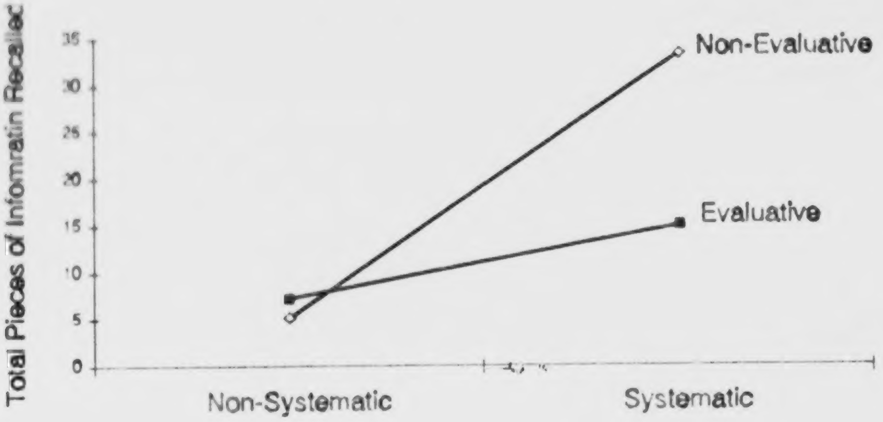

Figure 8. Total Pieces of Information Recalled by Effort and Evaluation

Table 1

Total Number of Information Items Accessed by Goal Conditions and Political Expertise

Condition	Experts		Novices	
	Goal Conditions			
	Evaluative	Non-Evaluative	Evaluative	Non-Evaluative
Systematic	31.54	54.63	31.60	38.94
	(24)	(19)	(20)	(18)
Non-systematic	12.00	11.54	11.92	9.35
	(16)	(13)	(24)	(23)

Note. Total $n = 157$. Means represent the total number of information items accessed for each group. Numbers in parentheses are cell *ns*.

Table 2

Total Seconds Spent on Searching Information by Goal Conditions and Political Expertise

Condition	Experts		Novices	
	Goal Conditions			
	Evaluative	Non-Evaluative	Evaluative	Non-Evaluative
Systematic	555.79	1147.37	526.85	1004.06
	(24)	(19)	(20)	(18)
Non-systematic	171.19	192.62	178.52	187.96
	(16)	(13)	(24)	(23)

Note. Total $n = 157$. Means represent seconds of time spent on accessing information for each group. Numbers in parentheses are cell *ns*.

Table 3

Within-Candidate Search Index by Goal Conditions and Political Expertise

Condition	Experts		Novices	
	Goal Conditions			
	Evaluative	Non-Evaluative	Evaluative	Non-Evaluative
Systematic	.23	.38	.30	.76
	(24)	(19)	(20)	(18)
Non-systematic	-.14	.28	-.01	.30
	(16)	(13)	(24)	(23)

Note. Total $n = 156$. Means are the search index for each group. A positive index value indicates that the search dominates over the across-candidate search, and a negative index value indicates a dominant across-candidate search. Numbers in parentheses are cell *ns*.

Table 4

Standard Deviation of Total Items Accessed Across Three Candidates by Goal Conditions and Political Expertise

Condition	Experts		Novices	
	Goal Conditions			
	Evaluative	Non-Evaluative	Evaluative	Non-Evaluative
Systematic	2.80 (24)	3.44 (19)	2.16 (20)	1.35 (18)
Non-systematic	1.41 (16)	1.83 (13)	1.19 (24)	1.53 (23)

Note. Total $n = 157$. Means are the standard deviation of the total items of information accessed across the three candidates in each condition. If the standard deviation is greater than zero, that means that the amount of information searched is variant across the candidates, which suggests a non-compensatory decision-making strategy. Numbers in parentheses are cell *ns*.

Table 5

Total Pieces of Information Correctly Recalled by Goal Conditions and Political Expertise

Condition	Experts		Novices	
	Goal Conditions			
	Evaluative	Non-Evaluative	Evaluative	Non-Evaluative
Systematic	15.50 (24)	33.26 (19)	14.50 (20)	33.50 (18)
Non-systematic	7.13 (16)	4.54 (13)	7.29 (24)	5.61 (23)

Note. Total $n = 157$. Means are total pieces of information subjects correctly recalled for each group. Numbers in parentheses are cell *ns*.

Appendix A

Statements used for goal manipulation checks

1. When I read the candidate information, I attempted to evaluate those candidates.
2. I paid LITTLE attention to the candidate information.
3. I tried to memorize each candidate's issue positions.
4. I attempted to compare these candidates.
5. I attempted to form impressions of these candidates.
6. I took LITTLE care in reading the candidate information.
7. I tried to memorize each candidate's personality.
8. I tried to quit the political scenario as quickly as I could.
9. I tried to memorize each candidate's campaign activities.
10. I attempted to reduce my time spent on reading the candidate information.
11. I attempted to evaluate the user-friendliness of this computer program.
12. I tried to access all the information provided.
13. Before the political scenario began, I was informed that I was going to made a subsequent voting decision.

Note. Statements 1, 4, 5, and 13 were designed to check the evaluative dimension of their information processing and statements 2, 6, 8, 10, and 12 were designed to check the systematic dimension of their information processing. Statements 3, 7, and 9 were used to check the memory-set manipulation and statement 11 was used to check the instructions used for the careless information processing condition.

Swamped in Politics: News Coverage of Wetlands in Three Presidential Administrations

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Swamped in Politics: News Coverage of Wetlands in Three Presidential Administrations

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Abstract

Several studies suggest that U.S. Presidents dominate the media agenda. This computer-assisted content analysis of Associated Press coverage of wetlands over a 12-year period (1984-96) compares the administrations of Reagan, Bush, and Clinton. Multidimensional scaling analysis and hierarchical cluster analysis methods are employed to examine patterns of how key terms occur together in the text of the news discourse. Concept mapping procedures identify four major themes in 1,756 wetlands news articles from 1984-96: Habitat Restoration, Jobs/Development, Regulation Legislation, and Agriculture/Spending. Shifts in relative prominence of major themes suggest an active, but not necessarily dominant, influence of U.S. presidents on the media agenda.

Swamped in Politics: News Coverage of Wetlands in Three Presidential Administrations

The question of who sets the media's agenda is one of critical interest to mass communication scholars. This study explores the influence of U.S. presidents in shaping the content of news media coverage.

The role of the news media in society is as much a manifestation or product of culture as it is a source of culture, Shoemaker and Reese (1991/1996) have suggested. Similarly, Kennemar (1992/1994) argues the news media "are as much the target of agenda-setting as they are the source" (p. 9). The focus of this paper is on this recycling and recursive role of the mass media in society (borrowing from the language of Derksen & Gartrell, 1993).

The importance of studying media content—"the message itself as a *dependent variable*"—is emphasized by Shoemaker and Reese (1991/1996, p. 11) in *Mediating the Message: Theories of Influence on Mass Media Content.* They argue that rather than viewing media content as a given, instead scholars should examine the factors inside and outside media organizations that affect media content (p. 1). This analysis proceeds from this approach. The term media sociology often is applied to studies with this focus: "A number of researchers who previously studied media effects—including ourselves—now find themselves asking why such effect-producing content exists to begin with" (Shoemaker & Reese, 1991/1996, p. 5).

An intuitively-appealing hierarchical model of influences on media content is offered by Shoemaker and Reese (1991/1996). The model divides influences on media content into five levels of widening scope: the individual level, the media routines level, the organization level, the extramedia level, and the ideological level.

Dearing and Rogers (1996) explicate the agenda-setting process as "composed of the media agenda, the public agenda, and the policy agenda, and the interrelationships among these three elements . . . So, the agenda-setting process is an ongoing competition among the proponents of a set of issues to gain the attention of media professionals, the public, and policy elites" (pp. 5-6). They call for increased efforts of scholarly studies that focus on single issues to provide better understanding of these dynamic processes.

Useful analyses of single issues include Lang and Lang's (1983) examination of the role of the media in the Watergate scandal, Gitlin's (1980) provocative study of coverage of the Students for a Democratic Society during the Vietnam War era, and Entman's (1991) analysis of coverage of the Korean Air Lines and Iranian air incidents. Additional in-depth investigations on single issues are needed, according to Dearing and Rogers (1996), to address such questions as who puts an issue on the national agenda: "What institutions in addition to the *New York Times* and the White House put an issue on the national agenda?" (p. 95).

Agenda studies are critically important in the field of communication research, although they have been plagued by problems of terminology. Berkowitz (1992/1994) provides a helpful organization of the linguistic hodgepodge of terminology—the semantic schizophrenia—weighing down scholarly discussion of the mutual influences of policymakers and journalists. The terms *agenda-setting*, *agenda-building*, and *information subsidy* have "added both understanding and confusion to the study of journalists and news sources" (p. 82). Sadly but truly, the absence of consensus among communication scholars on the application of these various terminologies effectively mires the field in a bog of confusion and lack of clarity.

Berkowitz (1992/1994) recommends the use of the term *agenda-building* or *media agenda-building* in discussion of the "interactive, give-and-take process of shaping media content" (p. 87). Not viewed simply as a transferral of priorities, this notion of the media agenda acknowledges the dynamic nature of the continuing process. As Berkowitz (1992/1994) notes, "Beyond journalism itself, the shared culture of journalists and policymakers leads toward a dynamic relationship that is sometimes more adversarial and sometimes more of an exchange" (p. 102).

The needs for investigation of news media content as dependent variable, noted by Shoemaker and Reese (1991/1996), as well as for in-depth analysis of single agenda-related issues, recognized by Dearing and Rogers (1996), point toward studies such as this one on the content of news media coverage of wetlands. Moreover, Shoemaker and Reese (1991/1996) call for improved precision in methods for investigating media content, and this study employs rigorously precise measurement and comparison techniques made possible by developments during this decade in computer-assisted content analysis.

Recent investigations demonstrate that the White House is highly influential "in putting an issue on the U.S. media agenda" (Dearing & Rogers, 1996, p. 17). The "notoriously" powerful role of U.S. presidents in influencing news coverage is observed by Shoemaker and Reese (1991/1996, p. 182). Cohen (1989, cited in Shoemaker & Reese, 1991/1996, p. 182) makes a similar observation:

> The president has a natural advantage over the media, giving him a commanding lead in setting the terms of public-political discourse. The president is invariably news . . . The White House can therefore create the news necessary to give the president's agenda wide publicity and even dominance in the political marketplace. (p. 2-3)

The U.S. president "can put an issue on the national agenda just by giving a talk about it" (Dearing & Rogers, 1996, p. 75). In fact, Kingdon (1984) posits that "No other single actor in the political system has quite the capability of the president to set agendas in given policy areas for all those who deal with these policies" (p. 17).

Bosso (1987) further suggests the U.S. president "is the political system's thermostat, capable of heating up or cooling down the politics of any single issue or of an entire platter of issues" (p. 261). Other influences such as the prestige media, scientific journals and the results of public opinion surveys also are powerful. Recent studies also provide evidence for the influence of Congress on setting the media agenda (Goodman, 1994).

An earlier investigation of news coverage of wetlands by Associated Press demonstrated systematic shifts over time in relative prominence of the competing conservation and property owner concerns (Riechert, 1996). The study covered an 11-year period from 1984-95 and identified shifts in coverage content across years. The relative prominence of competing stakeholder concerns was shown to be related to news sources either mentioned or quoted in news articles. Some 1,456 articles were included in the computer-assisted content analysis. The study did not investigate systematic shifts in coverage across four-year periods corresponding to U.S. presidential administrations.

The present study continues this strand of research by examining shifts in news coverage from 1984-96, across presidential administrations, involving those of Ronald Reagan, George Bush, and Bill Clinton (his first term). Some 1,756 articles are analyzed in this study.

The research strategy of this study is to examine news coverage of the particular issue of wetlands over time, comparing news coverage during the administrations of three different U.S. presidents and examining whether and how differences in coverage are manifest during those administrations. The topic of wetlands is appropriate for a study such as this. Wetlands are the subject of continuing news coverage in recent years as scientists debate their definition, conservationists promote their preservation, property owners and developers lobby for loosened protection for them, Congress debates their regulation, and courts address cases involving such conflicts. Wetlands have received continued and increasing news coverage over the past few years, becoming the focus of national attention in 1988 after Presidential candidate George Bush adopted the slogan, "No net loss of wetlands," as a campaign promise.

Method

In this study computer-assisted content analysis methods are used to examine news articles about wetlands over a 12-year period involving the presidential administrations of Reagan, Bush, and Clinton. Key themes in the wetlands news coverage will be identified using a set of multidimensional scaling (MDS) techniques referred to as concept mapping (Miller, 1990/1995). The method uses mathematical procedures to identify term co-occurrence patterns within text. Concept mapping was developed by Miller and relies on the use of the computer programs VBPro and VBMap, which he developed for qualitative and quantitative analysis of verbatim text.[1]

The term co-occurrence patterns will be examined using both cluster analysis (hierarchical) and MDS techniques. While the methods often are used in conjunction by scientists (Corter, 1996), their application to analysis of term co-occurrence patterns represents a methodological innovation of concept mapping. Hierarchical cluster analysis (1996) and extraction of principal components in MDS (Coxon, 1982) will be used to produce ultrametric tree dendograms and multidimensional scaling configurations or maps to indicate co-occurrence similarities of terms and theme (as terms occurring frequently together).

Once the major themes of wetlands news coverage are identified, their relative prominence will be compared among the periods corresponding to the presidential administrations of Reagan, Bush, and Clinton. These comparisons will be made with one-way analysis of variance tests applied to the mean occurrences of theme terms in articles from the three time periods. The conservative Scheffé test will be applied as a post hoc test to identify the differences among the presidential administrations.

Significant differences in theme prominence across the presidential administrations will provide evidence for the systematic shifts in news media coverage over time and will help illuminate the role of these U.S. presidents relating to the media agenda involving wetlands. Findings from this study will contribute to improved understanding of the complex extramedia influences on the content of news media coverage. They should suggest avenues for further study relating to media content, media sociology, and media agenda setting.

Concept Mapping

Miller and Riechert (1994) employed concept mapping techniques in identifying major themes in coverage of pesticides in four magazines including a general news magazine *(Time)* and three diverse specialized magazines *(Audubon, Nutrition Today,* and *Successful Farming).* Key themes included such topics as the environment, farming issues, and food risk.

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[1] The programs and their *User's Guides* are available at the url: http://excellent.com.utk.edu/~mmmiller/vbpro.html

Differences in relative prominence of the themes were identified across the magazines, and were interpretable by the different editorial slants of the specialized magazines. These differences would be expected in pesticides coverage among the magazines. The distinctions were identified, and the comparisons were accomplished, with quantitative precision through computer-assisted content analysis procedures. The study illustrates the usefulness of the concept mapping methods for identifying themes in text and for making comparisons related to these themes.

The concept mapping procedures have been employed in numerous studies since 1993 to investigate a number of research questions with computer-assisted content analysis. These studies include investigations of national election issues (Miller, Andsager, & Riechert, 1996); media framing of hate speech (Miller & Andsager [in press]); trends in scholarly journal content (Miller, 1994); coverage of women's health issues such as the French abortion pill RU486 and silicone breast implants (Andsager & Miller, 1994; Smiley & Andsager, 1996); advocacy group and news framing of public policy issues (Riechert, 1996); public issues (Miller & Riechert, 1997); media coverage of wetlands (Riechert & Miller, 1997); magazine coverage of pesticides (Miller & Riechert, 1994; Riechert & Miller, 1994) and several studies on source credibility (Chew & Miller, 1993; Chew, Mehta, & Oldfather, 1993; Chew & Kim, 1994). The procedures also are described generally in Miller & Riechert (in press).

For this analysis all articles mentioning "wetlands" that were distributed by Associated Press from July 1984 until June 1996 were obtained in full text from the AP Newswire database through the DIALOG information service. This provided a data set of 12 full years of news coverage by AP (the full text of AP articles was available beginning with July 1984). Since this investigation was directed at news coverage and U.S. presidential administrations, articles discussing wetlands outside the United States were omitted from the this analysis. Also eliminated were editorial roundups, obituary-type articles (reporting the death of prominent wetlands advocates) and one article mentioning a college athlete whose last name was "Wetlands." Removal of these groups of articles left a total of 1,756 remaining articles on which this investigation focused.

These strategies for retrieving and retaining news articles yielded a large set of 1,756 articles for the analysis in this study. The volume of coverage is adequate to support examination of a number of questions relating to the media content. The distribution of the articles by year is shown in Figure 1. The set of articles include 43 from July 1984 - July 1985; 74 from 1985-86; 71 from 1986-87; 81 from 1987-88; 144 from 1988-89; 168 from 1989-90; 162 from 1990-91; 220 from 1991-92; 134 from 1992-93; 199 from 1993-94; 169 from 1994-95; and 251 from 1995-96. The steady increase in news articles about wetlands over this period indicates continued and increasing coverage of wetlands in the news media. The distribution of the wetlands news articles by presidential terms also shows this pattern:

Reagan	354
Bush	686
Clinton	716

The 1984-96 articles covered the time periods of Reagan's entire 1985-88 second presidential term as well as the last six months of his first term; of Bush's entire 1989-92 presidential term; and of Clinton's 1993-96 term except the last six months.

Themes in the wetlands articles were identified using the key word frequency ranking procedures and concept mapping techniques made possible by the VBPro set of computer programs, which include VBMap (Miller, 1990/1995a and 1990/1995b). The programs were designed specifically for content analysis of natural language text and for concept mapping, or multidimensional scaling analysis of co-occurring terms and themes in text. Entman (1993) elaborates the manifestation of themes in key words.

Case numbers were added in the text file containing the news articles, and the file was formatted in VBPro (Miller, 1990/1995b). The file then was submitted to the program's procedures for creating (1) an alphabetized list of all terms used in the articles (also indicating frequency of occurrence) and (2) a frequency-ranked list of all the terms, ordered by raw frequency of occurrence. The first file listed terms from *a*, occurring some 21,070 times, to *of*, occurring 29,224 times, to *water*, occurring 3,076 times, to *wetlands*, occurring 4,566 times, to *Zwannendael*, occurring 2 times. From the list of terms in the second file, ranked by frequency, were selected more than 100 terms that (1) occurred frequently in the text, and (2) that are substantively meaningful and unambiguous. Grammar function words such as *a* and *of*, though frequently-occurring, are omitted from analysis, as are terms that might have more than one meaning, such as *act* or *states*. The multidimensional scaling program for term co-occurrence accommodates a large number of terms, up to 125 words or groups of words.

The frequently-occurring terms selected for the concept mapping procedure are listed in Table 1 along with their frequency of occurrence and additional information that will be referenced later. These terms were used to create a search file (Miller, 1990/1995b), with which, and for which the text file was coded, using the VBPro coding procedures. Terms that occurred frequently in singular and plural form were combined in the search file together for coding purposes (farm/farms, and so on). The numeric coded file created by the procedures then was submitted to the VBMap program, which applies multidimensional scaling techniques to identify the term oc-occurrence patterns in the text. Three dimensions or coordinates were specified, because three dimensions are easily represented visually in maps or configurations that may be constructed using the program's output of coordinate values for each specified term.

The coordinate values output by VBMap for each specified term also are listed in Table 1 under the column heading, "Coordinates 1, 2, and 3." These values are useful in constructing multidimensional configurations or maps showing the relative location of the terms in a multidimensional space. An example of this type of map will be presented and discussed later in this paper.

The output of coordinate values for the terms also may be submitted directly into statistical programs such as SPSS™ for hierarchical cluster analysis, using the agglomerative schedule and cosine similarity measurement method, to ascertain which terms occur most often together. The procedure was followed for the 120+ terms discussed previously and listed in Table 1. The resulting clustering schedule, shown in a tree-type dendogram, immediately linked several groups of terms to reveal their occurence together frequently.

The following steps then were taken to assure the stability of the clusters. Before the analysis proceeded further, an additional search file as created with the same terms plus three added source identifier terms (to indicate the presidential terms of Clinton, Bush, and Reagan). The constructed code terms used were *$CLIN, $BUSH,* and *$REAG*—meeting the criteria of being unique, easily recognizable, and not occurring naturally in the text. The text file of the news articles was opened, and within each news article was added one of the identifier code terms, depending on the date of the article and the corresponding presidential term. Thus, the identifier code term *$CLIN* was added in articles from 1993-'96; $BUSH was added within articles from 1989-'92; and *$REAG* was added within articles from 1984-'88. The text file then was reformatted in VBPro before the coding procedure was repeated for the 120+ frequently-occurring terms and the three inserted identifier code terms.

The new numeric coded file then was submitted to the VBMap program for generation of coordinate values for three coordinates or dimensions, and the resulting data file was submitted to SPSS™ for hierarchical cluster analysis. (The procedures are followed first without, then with, the inserted code terms to confirm the stability of the clusters.)

The term clustering patterns revealed by these two clustering analysis procedures are shown in Columns 1 and 2 of Table 2. As indicated in the table, several terms clustered immediately with the term *agriculture: acreage, crop, growers, producers, production, subsidies, benefits,* and *rural.* A second tight cluster was formed by the linking of the terms *conservation, soil, erosion, farming, USDA, erodible, farmers,* and *agricultural.* The table lists the terms connected in 23 tightly-formed clusters of co-occurring terms from among the 120+ terms included in the cluster analysis.

Examining the co-occurrence patterns of the individual terms, as listed in Table 2, might be compared to looking at a grove of trees from an arm's length—we see the individual leaves clearly, but a different perspective and additional understanding is provided by looking from several paces back. (This avoids the well-known "can't see the forest for the trees" problem.) Thus, another stage of analysis is undertaken to examine the co-occurrence patterns of the key terms from the perspective of stepping a few paces back, combining the clustering schedules into fewer and more easily comprehendible categories.

Another way to describe the comparison of relative proximities of clustering groups of terms is to think of looking at constellations of terms. The following procedures offer this type of examination.

A new search file was created by combining these terms into 23 groups (as suggested in the cluster analysis) plus the three identifier terms indicating presidential administration. This search file was submitted to the VBPro coding procedure, along with the text file of the news articles, to generate a new data file coded for frequency, by case, of terms from each term cluster, as listed in Table 2. The data file then was submitted to the VBMap program to obtain coordinate values for three coordinates or dimensions. This information was output by the VBMap program and is listed in Table 2 under the column heading, "Coordinates 1, 2, and 3." The coordinate values may range from -1 to 1, with proximity in the three-dimensional space representing frequent occurrence of the terms together in the text. Thus, the terms located farthest apart in the derived multidimensional space occur together infrequently or never. For example, the identifier terms *$CLIN*, *$BUSH*, and *$REAG* necessarily never occur together in an article.

The relative proximity of the groups of terms, now consolidated into meaningful clusters or themes *(agriculture, conservation,* and so forth), is easily visualized in a multidimensional configuration or map. This can be constructed using the coordinate values output by the VBMap program. The values listed in Table 2, Column 3, were used to construct the multidimensional concept map presented in Figure 2.

Recall that the purpose of multidimensional scaling procedures is to reveal the hidden patterns of data structure (Kruskal & Wish, 1978). The map shown in Figure 2 provides a visual illustration, in a derived multidimensional space, of the data structure of the term co-occurrence patterns in the news coverage on wetlands over a 12-year period. It shows us what terms occurred together, and which terms did not tend to co-occur. Circles on the map represent the relative location of the terms in the text; thus, the points (represented by circles) that locate closest to one another represent terms that occur consistently together in the text.

The shaded circles indicate the relative location of the inserted identifier code terms representing the administrations of Clinton, Bush, and Reagan. Location of the shaded circles does not indicate the content of what each president said in the media (that remains for a further study), but are meaningful in conjunction with their proximate terms to indicate what themes occurred most prominently in news coverage during the distinctive administrations.

The two dark lines represent coordinates or dimensions 2 and 3 in the multidimensional space, and the vertical lines to which the circles are attached represent coordinate 1 in the three-dimensional space. The circles attached at the top of a vertical line indicate positive values in coordinate 1, while circles attached at the bottom of a vertical line indicate negative values.

What does the map tell us about news coverage on wetlands during presidential administrations of Clinton, Bush, and Reagan? The configuration reveals that industry, pollution, wetlands, habitat, the environment, building, and restoration received preponderant coverage during the Reagan administration, compared to his immediate two successors. Jobs and industry were primary themes during the Bush administration. With regard to coverage of wetlands, legislation, government, rights (of property owners), and Congress dominated coverage during Clinton's first term in office.

The relative location of Bush compared to Reagan and Clinton is most notable, revealing that media coverage of wetlands was much more similar during Bush's administration to coverage during Reagan's administration than during Clinton's succeeding term. In other words, wetlands coverage after Bush was dramatically different than coverage before his administration. The dramatic shift suggests the possibility that Bush redirected the media discussion of wetlands, which could be accomplished through shifting the national policy agenda related to wetlands. Studies by Nicodemus (1995) and Riechert (1996) support this interpretation. Nicholas (1992) observes:

> President Bush, who once vowed to protect wetlands "no matter how small" has responded to this pressure with a well-orchestrated campaign that could threaten fully half of the nation's remaining wetlands. The White House defends its position by claiming that previous regulations covered many areas that are not really wetlands and

> went too far in blocking development and denying landowners their rights to develop their property. Some members of Congress, from both sides of the aisle, have also proposed legislation to rein in wetlands protection. And growing numbers of landowners, encouraged by a conservative shift in the judicial system during the Bush and Reagan years, are pressing their cases in courts. (p. 36)

Another type of visual representation of the patterns of term co-occurrence in the text is provided by cluster analysis in the tree-type dendogram. In such a diagram all terms are eventually linked, but terms that are combined earliest in the clustering schedule are the ones that occur most frequently together. The dendogram in Figure 3 also shows the relative co-occurrence similarity of these term clusters, reasonably conceptualized as themes in the wetlands articles. The dendogram was generated by cluster analysis with the cosine method using the coordinate values shown in Table 2, which were output by the VBMap program.

The clustering results displayed in the dendogram in Figure 3 provide justification for further consolidation of the term clusters into superclusters, dependably conceptualized as major themes in the wetlands news coverage. After all, these clustering terms and groups of terms emerge from the data themselves. The dendogram suggests broad classification of the 23 specific themes into four major themes, which we label Habitat Restoration, Jobs/Development, Regulation/Legislation, and Agriculture/Spending. These major themes are listed in Table 3 along with the term clusters or narrower themes that they encompass. Reasonable division of the coverage into these manifest major categories allows for comparison of relative prominence across presidential terms. The results of these comparisons will be discussed following a review of the nature of each of these four grand topical divisions.

The Habitat Restoration Theme

The major theme referred to here as Habitat Restoration includes the narrower themes of *permit, preserve, build, habitat, restoration, wetlands, runoff,* and *scientists.* Grouping of these topics into this sensible encompassing theme is based on the results of the cluster analysis shown in the dendogram in Figure 3.

News coverage with prominence of the Habitat Restoration Theme involves discussion of wetlands preservation and restoration, of wetlands-related permits and projects in building that affect wetlands. For example, the AP news articles ranking highest in frequency of the terms comprising this theme is a Sept. 5, 1994, article datelined Land O' Lakes, Fla., carrying the headline, "Florida's Water Woes." Excerpts of the article include the following:

> Catherine Monsees retired to a house on a lake once stocked with fish and teeming with wildlife. That's all gone now. What she has left is a dry lake bed chocked with weeds and a tarnished dream. for her golden years. . . .The culprits are varied: too much water pumped from natural underground reservoirs, persistent drought, rapid growth and virtually no thought for water conservation. . . . An estimated 17,000 acres of wetlands are damaged. Marshes are arid. Cypress trees are dead. Ducks, cranes, turtles and alligators are gone.

The Jobs/Development Theme

The Jobs/Development theme incorporates the narrower themes of *industry, pollution, development, environment,* and *jobs.* News articles with prominent emphasis on this major theme discuss industry and development relevant to wetlands, implications to the environment, and potential impacts on jobs.

An example of an article with prominent focus on this major theme is an Oct. 21, 1992, article datelined Washington and carrying the headline, "Environmentalists Cool to Bush, Back Clinton Despite a Mixed Record." The following excerpts are taken from the news report:

> A comic strip congressman recently lectured his wife, urging her to "face reality, the real choice. You can either choose jobs or trees, jobs or air, jobs or . . ." The distraught woman bolted the frame—a choice voters don't have, even when the real-life presidential campaign dialogue starts sounding like the Washington satire by Mark Alan Stamaty. President Bush alternatively labels Arkansas Gov. Bill Clinton a polluter-coddler, who let poultry companies foul his state's rivers with chicken waste, and an environmental extremist who has embraced the ideas of his greener-than-thou running mate, Sen. Al Gore. . . . Bush came into office pledging to be an environmental president but has gradually given more weight to business concerns.

A second example of coverage focusing on this theme is seen in a Sept. 23, 1991, news report datelined Grand Canyon, Ariz., and carrying the headline, "Bush, Environment."

Excerpts from the 1,269-word article follow:

> Like any other tourist, President Bush stood in awe of the Grand Canyon's magnificence. His one-word reaction to the canyon's natural majesty: "grandeur." The Grand Canyon provided a breathtaking backdrop for the official announcement of a plan to block pollution over the national park a lofty achievement by any standard. . . . But critic's lambast the administration's pro-industry bent on other issues, such as oil exploration in the Arctic National Wildlife Refuge and resistance to costly regulatory measures. . . . [Wilderness Society President George Frampton] charged Bush "has stood with big oil, the timber industry and the mining companies." . . . Bush frequently states a goal of balancing economic and environmental needs. He used that rationale last month when he backed off a campaign promise to allow "no net loss" of wetlands by rewriting the definition of a wetland. "A pothole in the backyard is not a wetland," Bush told reporters. . . . Among other actions bemoaned by administration critics: Refusal to commit to reduction targets for carbon dioxide emissions, . . . the decision to drop millions of acres from wetlands protection . . . Bush's insistence on opening the Alaska refuge to oil exploration...resistance to raising fuel efficiency requirements for cars . . .

The Regulation Legislation Theme

A third major theme, described as Regulation Legislation, incorporates the smaller themes of *government, legislation, endangered, rights,* and *regulation.* News articles emphasizing these topics focus on wetlands legislation, implications for endangered species and for the rights of property owners, and the role of government in regulation of wetlands.

An example of news articles with prominent emphasis on these areas is the March 3, 1995, report datelined Washington and headlined as "House Approves Landowner-Compensation Bill." Excerpts of the 805-word article follow:

> Declaring an assault on arrogant government, the House approved a bill today requiring federal agencies to compensate landowners for restrictions that protect wetlands and endangered species. The legislation, which was denounced by Democrats as a threat to environmental protection and a potential drain on the U.S. treasury, cleared by a vote of 277-148. It now goes to the Senate . . . Called the "Private Property Protection Act," the House-passed measure would broaden substantially the definition courts traditionally have given to a "regulatory taking" of property.

The Agriculture/Spending Theme

A fourth major theme referred to as the Agriculture/Spending Theme represents the combination of the narrower themes of *agriculture, conservation, economic, spending,* and *Congress,* as mentioned previously and as listed in Tables 2 and 3. Articles emphasizing these topics focus on wetlands and agriculture, conservation practices relating to wetlands, and economic/spending issues relating to agriculture. A news article headlined "1985 Farm Law Will Help Eliminate Soil Erosion: Conservation Group" and released by Associated Press on Jan. 30, 1990, emphasizes these topics. Excerpts from the 664-word article, datelined Washington, follow:

> Historic provisions in 1985 farm law will help farmers move rapidly toward the elimination of severe soil erosion on much of the nation's cropland by the mid-1990s, a private conservation group said Tuesday. A study of more than 1,000 farms in selected areas across the nation showed that the conservation provisions of the 1985 Food Security Act have been a main force in prodding and luring farmers into protecting soil resources. The report, released here by the Soil and Water Conservation Society of Ankeny, Iowa, focused on the 1985 law's provisions governing the use of fragile, highly erodible land, and wetland areas.

The computer procedures with which these four major themes were identified assure their representativeness of the overall news coverage on wetlands, because the terms comprising them emerge from the news articles themselves based on their frequency of occurrence and their occurrence together in the text. Identification of these themes, represented in the text by the appearance of the relevant terms, allows for comparisons of their relative prominence in the news coverage.

The efficiency and precision of computer-assisted content analysis is appreciated when the task is to code 1,756 articles—about 4,000 pages of text—for frequency of occurrence of 100 or terms (from Table 2) combined into four major topical themes. This process is accomplished easily by constructing four new variables from an existing data file in SPSS™. The existing file, created by VBPro with search files and coding procedures, listed the frequency of occurrence of the terms listed in Table 3 for each case or news article. Four new variables were created using the computer commands in SPSS™ and adding, for each case, the frequencies for the terms combined within each major theme category. The values generated in this process then were used to conduct one-way analysis of variance tests comparing the prominence of each major theme in news coverage among the three presidential administrations. These statistical tests compare the mean frequencies of the theme terms in news articles distributed during the three presidential administrations. The results of these analyses are presented in the following section.

Results and Discussion

Comparisons of relative prominence were made among coverage in the three presidential administrations for each of the four major themes in the wetlands news coverage. The tests, therefore, compared the prominence of the major themes of Habitat Restoration, Jobs Development, Regulation Legislation, and Agriculture/Spending across the administrations of Reagan, Bush, and Clinton. Prominence of a theme was measured by occurrence of the relevant theme terms in the news articles. Comparisons involve the mean occurrences of the theme terms.

Coverage of The Habitat/Restoration Theme

Comparison of the term frequency means revealed that coverage of the Habitat Restoration Theme was more prominent in the Reagan administration than in the following administrations. Table 4a summarizes these comparisons. One-way analysis of variance revealed a significant difference among the presidential administrations, as summarized in Table 4b. The Scheffé post hoc test was applied, indicating that the mean occurrence of 13.31 relevant terms in the Reagan administration was significantly higher than the means of 11.40 and 10.10 during the Bush and Clinton years, respectively.

The environment was not considered an issue on Reagan's agenda, so the explanation for this must be found elsewhere. Reagan entered the oval office "as a time of especially low prestige—Jimmy Carter had just been vicariously held hostage by Iranian militants for 444 days" (Manheim, 1991, p. 83), as the news media had reminded the American public on a virtually daily basis. The Grenada incident among others served to positively reinvent Reagan in the public mind as a world leader. A point to be made here, Manheim argues:

> is that public officials, no less than political candidates—and probably more—have reason to find means to structure the ways they are portrayed in the news media. Much of their relationship with journalists—and through journalists, with the public, is guided by this fact. Making news, as much as making or implementing policy, is part and parcel of the business of politics. (p. 83)

Coverage of Jobs/Development Theme

Comparisons of prominence of the Jobs/Development theme in news coverage also were made for the three presidential administrations. The results of these tests are presented in Table 5. One-way analysis of variance tests revealed significant differences among the presidential administrations, for this variable. The Scheffé post hoc test showed that the relative occurrence of these relevant theme terms was significantly higher in the Bush administration compared to the Reagan and the Clinton administrations.

Examples of articles emphasizing this theme, provided in the previous section, were somewhat critical of Bush while focusing on his themes of jobs and development. A potential explanation is that the media frequently quoted Bush discussing jobs and development while they also provided criticism of his environmental policies.

Coverage of Regulation/Legislation Theme

Comparisons of relative prominence in media coverage of a third major theme, Regulation/Legislation, are presented in Table 6a. With a mean of 10.07 relevant theme terms per case during the Clinton administration, prominence of the Regulation/Legislation theme was significantly greater compared to coverage during the terms of his two immediate predecessors (with means of 3.80 and 4.13). Coverage during the Reagan and Bush terms did not differ significantly. The results of the associated one-way analysis of variance test are given in Table 6b.

Coverage of Agriculture/Spending Theme

Similar findings related to coverage of a fourth broad theme of Agriculture/Spending are presented in Table 7. As indicated table, coverage of agriculture was significantly more prominent in Clinton's administration than in the terms of Reagan and Bush, while this theme received similar levels of coverage during the Reagan and Bush administrations. One-way analysis of variance findings are shown in Table 7b.

To summarize the results of these comparisons, shown in Tables 4-7, coverage of Habitat Restoration was highest during the terms of Reagan, coverage of Jobs/Development was highest during the term of Bush, and coverage of Regulation Legislation and Agriculture/Spending was highest during Clinton's term. These comparisons offer compelling evidence for the systematic shifting of news media content over time. The nature of the shifts, however, suggest an inconsistently—rather than consistently—dominant influence of the U.S. president on the American news media agenda.

Review of the news articles and findings of additional studies (Nicodemus, 1995; Riechert, 1996) show that during the Reagan's presidential terms in the 1980s, news coverage of wetlands emphasized conservation/environmental issues. Conservation advocate groups were quoted frequently in the news media as they discussed the benefits of wetlands and warned of the environmental threats of continued loss of natural wetlands. Benefits of wetlands include preventing flooding, improving water quality, and providing critical habitat for threatened and endangered wildlife species (*Wetlands Fact Sheets*, 1995). Public awareness of the environmental importance of these diverse areas was so high in the public mind, in fact, that Presidential hopeful George Bush in 1988 issued the slogan, "No net loss of wetlands" as a campaign promise.

After taking office, however, Bush instead sought relaxation of regulations that protect wetlands and who lobbied for legislative reforms that restricted the definition of wetlands and that would provide compensation to property owners affected by restrictions imposed by wetlands protection. During his administration scores of wetlands legislative reform bills were introduced, and these still were being debated in the national policy and media agendas when Clinton took office. The ensuing shift in wetlands news coverage of relative prominence of conservation to property-owner concerns is linked largely to the public statements and policy activities of Bush (Nicodemus, 1996; Riechert, 1996).

Conclusions

Several conclusions may be drawn from this study. Evidence is provided that in some cases (with Bush, in wetlands news coverage), presidents may effectively energize an issue and reframe it in the media, and yet may not be able to maintain media nor public support on the issue. Continued research in this area is needed.

It would be worthwhile, for example, to study the relationship of the themes in presidential assertions in news coverage content, relative to assertions by other actors such as legislators and to the prominence of these themes in media coverage. This can be studied in coverage of wetlands and any other number of topics.

Notable also is the successful demonstration of these computer-assisted methods in identifying major themes in text and using those themes for making meaningful comparisons. These methods can be applied to studying media content with reliable precision and appealing efficiency. The methods can handle enormous amounts of text, making possible the investigation of complex agenda processes over long time periods and in volumes of coverage. Investigation of research questions with larger sample sizes will make agenda-related studies more powerful in examining news coverage for differences of interest. Such large sample studies allow trends to emerge because the statistical law of large numbers becomes operative. It also makes it possible to look for patterns between and within subsets of the data, which also contain large amounts of information.

These findings of the comparisons in this study, considered together with reviews of the news articles emphasizing each major theme, show that the role of the U.S. president in the media agenda is more complex than some studies have suggested. While the president may place an issue on the public agenda and the media agenda, the president may not always control its evolution. Other actors in the process, including legislators, compete for dominant influence.

It is possible that historically U.S. presidents have enjoyed more influence on the media agenda than they have enjoyed in recent years. Investigations by Hughes (1995) and others provide evidence that this is the case. Further study is needed to determine changes in the president-media relationship over time.

Journalism norms and values prescribe that the president will be covered prominently in the news media. The position and the activities of the president hold the news values of prominence, impact, and many times conflict, occasionally even the bizarre. Numerous studies cited here show that media continually and consistently report the comments of the president. The findings of this study, however, along with those of Hughes (1995), Gonzenbach (1992), and others, also indicate that the media coverage of the U.S. president includes far more than what the president says and wants to be said. These findings suggest that the U.S. president is powerful enough to tell the media what to talk about, but is not powerful enough to tell them what to say.

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Table 1. Terms Occurring Frequently in News Coverage of Wetlands, Specified for Analysis of Co-Occurrence Patterns, and Eigenvector Values for Multidimensional Space

Term	Frequency of Occurrence	Coordinates 1, 2, and 3*
wetlands	4,566	(0.06, -0.06, 0.35)
environmental	3,566	(-0.24, 0.26, 0.04)
water	3,076	(-0.02, -0.17, 0.14)
farmers	1,977	(0.61, 0.10, 0.14)
land	1,977	(0.21, -0.01, 0.33)
government	1,825	(0.07, 0.38, 0.25)
acres	1,749	(0.27, -0.17, 0.31)
senate	1,692	(0.11, 0.50, 0.03)
conservation	1,623	(0.53, -0.03, 0.16)
Bush	1,660	(-0.09, 0.18, -0.34)
wildlife	1,482	(-0.06, -0.31, 0.28)
congress	1,425	(-0.05, 0.43, -0.13)
oil	1,404	(-0.14, -0.12, -0.14)
protection	1,303	(-0.29, 0.28, 0.30)
spending	1,250	(0.10, 0.50, -0.24)
agriculture	1,224	(0.61, 0.21, 0.05)
budget	1,169	(0.02, 0.37, -0.33)
Clinton	1,090	(-0.14, 0.45, -0.06)
development	948	(-0.08, 0.03, 0.01)
legislation	940	(-0.11, 0.51, 0.16)
property	875	(-0.22, 0.27, 0.56)
species	859	(-0.31, 0.08, 0.43)
environment	812	(-0.19, 0.22, -0.05)
policy	792	(0.09, 0.04, 0.12)
republicans	778	(-0.21, 0.52, 0.12)
environmentalists	772	(-0.15, 0.04, 0.06)
natural	718	(-0.09, -0.17, 0.10)
research	706	(0.09, 0.12, -0.23)
protect	702	(0.12, 0.08, 0.20)
everglades	701	(-0.06, -0.15, -0.01)
EPA	693	(-0.20, 0.09, 0.01)
American	692	(0.01, 0.05, 0.04)
cost	690	(0.02, 0.19, -0.08)
clean	644	(-0.21, 0.14, -0.08)
tax	652	(0.00, 0.17, -0.27)

Table 1. (Continued)

Term	Frequency of Occurrence	Coordinates 1, 2, and 3*
fish	650	(-0.12, -0.35, 0.20)
crop	632	(0.65, 0.13, 0.04)
pollution	631	(-0.15, 0.08, -0.05)
endangered	630	(-0.33, 0.16, 0.45)
industry	619	(-0.14, 0.04, -0.11)
project	611	(-0.06, -0.19, 0.00)
agricultural	602	(0.39, 0.05, 0.14)
birds	568	(-0.07, -0.29, 0.14)
habitat	523	(-0.04, -0.26, 0.31)
soil	511	(0.43, -0.07, 0.13)
production	494	(0.51, 0.05, -0.02)
laws	490	(-0.25, 0.32, 0.29)
resources	483	(-0.04, -0.08, 0.09)
lawmakers	455	(-0.11, 0.51, 0.13)
acre	448	(0.12, -0.21, 0.18)
vote	442	(-0.06, 0.43, 0.06)
flood	432	(-0.01, -0.12, 0.10)
world	426	(0.00, -0.02, -0.16)
landowner	420	(0.03, -0.00, 0.31)
corps	414	(-0.10, -0.18, 0.12)
health	400	(-0.14, 0.28, -0.13)
subsidies	394	(0.49, 0.21, -0.07)
economic	392	(-0.01, 0.08, -0.11)
construction	389	(-0.11, -0.09, -0.04)
home	387	(-0.02, -0.06, -0.09)
costs	375	(0.11, 0.10, -0.10)
benefits	372	(0.31, 0.14, -0.02)
energy	370	(-0.15, 0.12, -0.25)
plants	369	(-0.08, -0.06, 0.01)
waste	362	(-0.13, 0.06, -0.13)
beach	348	(-0.08, -0.13, -0.03)
rights	326	(-0.19, 0.30, 0.48)
lakes	326	(-0.08, -0.19, 0.05)
court	322	(-0.10, 0.04, 0.11)
growers	318	(0.28, 0.06, 0.01)
gulf	310	(-0.08, -0.09, -0.11)

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Table 1. (Continued)

Term	Frequency of Occurrence	Coordinates 1, 2, and 3*
marshes	304	(-0.02, -0.20, 0.11)
restore	299	(0.03, -0.02, 0.09)
forest	299	(-0.12, 0.07, 0.03)
island	296	(-0.06, -0.12, -0.01)
erosion	294	(0.41, -0.05, 0.14)
Reagan	290	(-0.09, 0.06, -0.17)
build	290	(-0.09, -0.12, 0.07)
USDA	287	(0.49, 0.01, 0.12)
acreage	287	(0.44, 0.11, 0.06)
toxic	285	(-0.23, 0.11, -0.13)
regulation	285	(-0.19, 0.33, 0.30)
dole	285	(-0.06, 0.23, -0.05)
rivers	277	(-0.12, -0.19, 0.11)
duck	275	(-0.00, -0.24, 0.16)
engineers	269	(-0.12, -0.20, 0.16)
jobs	265	(-0.07, 0.08, -0.20)
waterfowl	255	(0.03, -0.24, 0.17)
protecting	255	(-0.05, 0.14, 0.22)
building	253	(-0.07, -0.11, 0.02)
population	251	(-0.09, -0.24 , 0.06)
environmentally	244	(0.07, 0.03, -0.06)
preserve	243	(-0.03, -0.06, 0.19)
producers	243	(0.50, 0.13, 0.02)
farms	240	(0.61, 0.16, 0.07)
urban	239	(-0.11, 0.12, -0.02)
funding	238	(0.05, 0.18, -0.12)
taking	234	(-0.11, 0.21, 0.26)
debate	234	(-0.03, 0.36, 0.23)
restoration	233	(-0.02, -0.12, 0.03)
drilling	233	(-0.13, -0.00, -0.22)
farming	231	(0.27, -0.02, 0.13)
sensitive	230	(0.02, 0.07, -0.07)
permit	228	(-0.08, -0.05, 0.10)
logging	228	(-0.16, 0.16, 0.09)
rural	220	(0.25, 0.15, -0.03)
developers	217	(-0.06, -0.07, 0.20)

Table 1. (Continued)

Term	Frequency of Occurrence	Coordinates 1, 2, and 3*
erodible	215	(0.57, 0.03, 0.09)
runoff	214	(-0.06, -0.11, -0.04)
chemicals	212	(0.04, -0.01, -0.03)
threatened	211	(-0.11, -0.10, 0.16)
owners	209	(-0.18, 0.13, 0.36)
residents	204	(-0.09, -0.17, -0.06)
global	202	(-0.09, 0.11, -0.21)
appropriations	200	(-0.01, 0.37, -0.06)
animals	199	(-0.13, -0.17, 0.15)
taxes	196	(-0.04, 0.13, -0.23)
scientists	195	(-0.10, -0.07, 0.01)

*Eigenvalues: 5.6608, 4.9291, 3.8051; Percentage Total Variance Per Factor: 5, 5, 4; Cumulative Percentage Total Variance: 5, 10, 14; Percentage Extracted Variance Per Factor: 39, 34, 26; Cumulative Percentage Extracted Variance: 39, 74, 100

Table 2. Themes in Wetlands News Articles

Group	Terms	Coordinates 1, 2, and 3*
(1) Agriculture	agriculture, acreage, crop, growers, producers, production, subsidies, benefits, rural	(0.16, -0.42, 0.50)
(2) Conservation	conservation, soil, erosion, farming, USDA, erodible, farmers, agricultural	(-0.02, -0.35, 0.49)
(3) Wetlands	wetlands, restore, landowner	(-0.16, 0.11, 0.12)
(4) Economic	economic, tax, budget, sensitive	(0.38, -0.39, -0.20)
(5) Jobs	jobs, energy, Reagan, taxes, Bush, global	(0.16, -0.33, -0.49)
(6) Regulation	regulation, laws, protection, logging	(0.32, 0.47, -0.12)
(7) Endangered	endangered, species, court	(0.09, 0.55, 0.09)
(8) Rights	rights, property, owners, taking, protecting	(0.26, 0.51, 0.21)
(9) Industry	industry, waste	(0.02, -0.01, -0.42)
(10) Pollution	pollution, clean, toxic	(0.05, 0.07, -0.46)
(11) Environment	environment, urban, environmental	(0.19, 0.14, -0.35)
(12) Development	development, EPA, forest, environmentalists	(-0.01, 0.16, -0.31)
(13) Spending	spending, cost, funding	(0.46, -0.28, 0.02)
(14) Congress	Congress, Dole, Clinton, appropriations	(0.55, -0.02, -0.06)
(15) Government	government, American, debate	(0.34, 0.10, 0.24)
(16) Legislation	legislation, lawmakers, vote, Republicans	(0.60, 0.24, 0.10)
(17) Runoff	runoff, residents, beach, Everglades, island, project	(-0.33, 0.04, -0.07)
(18) Scientists	scientists, plants	(-0.18, 0.07, -0.14)
(19) Permit	permit, threatened	(-0.19, 0.23, 0.06)
(20) Preserve	preserve, developers	(-0.18, 0.20, 0.03)
(21) habitat	habitat, wildlife, water, flood, waterfowl, resources, duck	(-0.36, 0.13, 0.09)
(22) build	build, rivers, natural, Corps, Engineers, animals	(-0.32, 0.26, 0.00)
(23) restoration	restoration, fish, birds, marshes, lakes, population	(-0.45, 0.13, 0.05)
SCLIN [identifier code term in 1992-96 cases]		(0.37, 0.28, 0.22)
SBUSH [identifier code term in 1988-92 cases]		(-0.14, -0.25, -0.14)
SREAG [identifier code term in 1984-88 cases]		(-0.30, -0.06, 0.02)

Note. The themes are identified by clusters of terms occurring together, identified in hierarchical cluster analysis of frequently-occurring terms.

*Eigenvalues: 2.3186, 1.9114, 1.6362; Percentage Total Variance Per Factor: 12, 10, 9; Cumulative Percentage Total Variance: 12, 22, 31; Percentage Extracted Variance Per Factor: 40, 33, 28; Cumulative Percentage Extracted Variance: 40, 72, 100

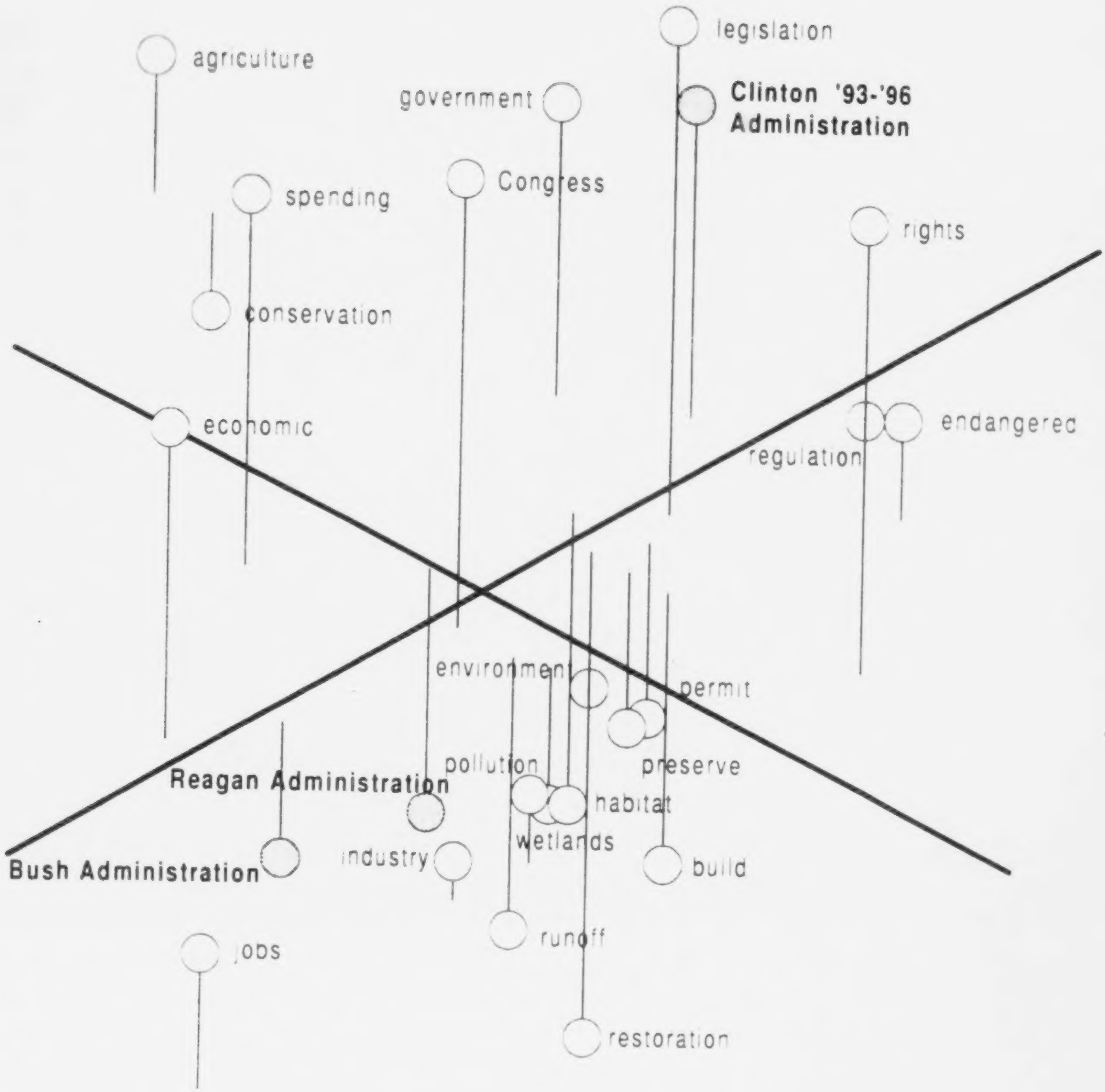

Figure 2. Concept Map of News Coverage of Wetlands, 1984-96.

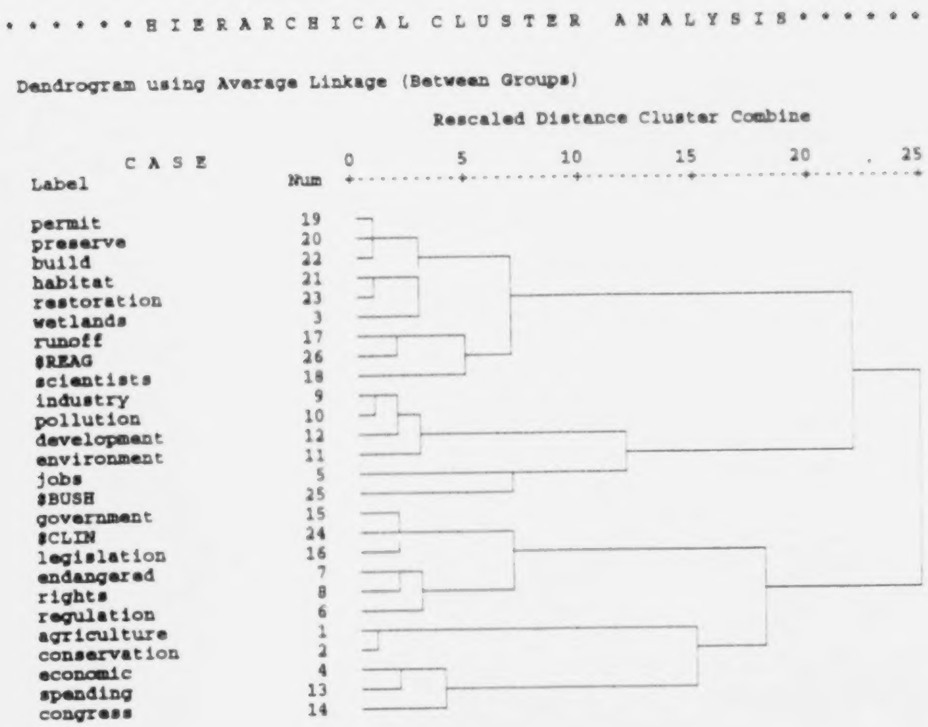

Figure 3. Dendogram Output of Hierarchical Cluster Analysis of Clustering Terms from Wetlands News Articles.

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Table 3. Major Themes Formed by Cluster Analysis of 23 Themes in Wetlands News Coverage (Frequently-Occurring Term Groups)

Major Theme*	Narrower Themes (Term Groups**) Included
Habitat Restoration	Permit, Preserve, Build, Habitat, Restoration, Wetlands, Runoff, Scientists
Jobs/Development	Industry, Pollution, Development, Environment, Jobs
Regulation Legislation	Government, Legislation, Endangered, Rights, Regulation
Agriculture/Spending	Agriculture, Conservation, Economic, Spending, Congress

* Suggested by clustering schedule shown in dendogram in Figure 3
**Listed in Table 2

Table 4a. Prominence of Habitat Restoration Theme in Wetlands News Coverage by Presidential Administration

	Reagan	Bush	Clinton
Mean:	13.31a	11.40b	10.10b
SD:	10.77	10.43	10.38
n:	354	686	716

Note: Means in the same row that do not share subscripts differ at $p < .05$ by the Scheffe test.

Table 4b. One-Way Analysis of Variance for Prominence of Habitat Restoration Theme in Wetlands News Coverage by Presidential Administration

Source	df	ss	ms	*F* Ratio
Between Groups	2	2451.17	1225.59	11.15*
Within Groups	1753	192601.55	109.87	
Total	1755	195952.72		

* $p < .0001$

Table 5a. Prominence of Jobs/Development Theme in Wetlands News Coverage by Presidential Administration

	Reagan	Bush	Clinton
Mean:	6.64a	8.09b	6.26a
SD:	9.50	9.48	6.68
n:	354	686	716

Note: Means in the same row that do not share subscripts differ at $p < .05$ by the Scheffé test.

Table 5b. One-Way Analysis of Variance for Prominence of Jobs/Development Theme in Wetlands News Coverage by Presidential Administration

Source	df	ss	ms	*F* Ratio
Between Groups	2	1246.69	623.35	8.72*
Within Groups	1753	125340.70	71.50	
Total	1755	195952.72		

* $p < .001$

Table 7a. Prominence of Agriculture/Spending Theme in Wetlands News Coverage by Presidential Administration

	Reagan	Bush	Clinton
Mean:	8.15a	9.42a	11.33b
SD:	12.76	12.07	10.51
n:	354	686	716

Note: Means in the same row that do not share subscripts differ at $p < .05$ by the Scheffé test.

Table 7b. One-Way Analysis of Variance for Prominence of Agriculture/Spending Theme in Wetlands News Coverage by Presidential Administration

Source	df	ss	ms	*F* Ratio
Between Groups	2	2696.11	1348.05	10.0004*
Within Groups	1753	236305.53	134.80	
Total	1755	239001.64		

* $p < .0001$

Running Head: Political Talk and Personal Talk

Bridging the Spheres: Political and Personal Conversation in Public and Private Spaces

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Abstract

Bridging the Spheres: Political and Personal Conversation in Public and Private Spaces

Personal and Public Places

Political talk may be the soul of democracy, but, for voices such as Schudson and Habermas, it must be constrained by particular rules or must proceed in special spaces. The nature of political talk, however, has received little empirical attention, and it is typically measured by single questions that construe politics narrowly. Avoiding the term "politics," we asked how often respondents talked about nine topics in general and in six loci (home; work; worship; civic organizations; commercial spaces; e-mail). Multidimensional scaling suggested that Political Talk (national affairs; state and local affairs; the economy; foreign events) and Personal Talk (personal and family matters; religion; entertainment/sports) are united by Bridge Talk (crime; education) to form a continuum. In most loci, Bridge Talk occurred most frequently. Political, Personal, and Bridge Talk occurred most frequently at home, affirming that the electronic cottage is wired to the public sphere.

Bridging the Spheres: Political and Personal Conversation in Public and Private Spaces

Continuing his crusade against loose talk about "the public sphere," Michael Schudson (1995) is now challenging the axiom that "conversation is the soul of democracy." He says it isn't. Previously, Schudson (1992) has questioned the very existence of anything like a "bourgeois public sphere" (Habermas, 1989 [1962]) in American political history, and, by implication, in anybody else's political history. He has also challenged the proposition that conversation is the most ancient of the arts, to which the media merely contribute. Rather, he thinks that mass media helped democratize conversations and that both the ideal of conversation, and its occasional realization, are consequences of mass media (Schudson, 1978).

Political conversation, asserts Schudson, is an oxymoron, a contradiction in terms. By conversation, he reminds us, we mean talk for its own sake among intimates, usually social equals, unbridled by an agenda, unbridled by rules except those of turn-taking and civility, and offering pleasure. Talking politics, on the other hand, is often painful, says Schudson. It implies an agenda, formal rules of order to protect weaker members, and purposefulness, oriented towards decision-making and the writing of laws.

Schudson is asking us, in effect, to reopen the question of whether casual conversation or organizational affiliations underwrite democratic governance. Implicitly, he is challenging our readings of Tocqueville (1969 [1840]) and Dewey (1927), and more recently of Putnam (1995, 1993), Barber (1984), and others. For Schudson, one infers, participatory democracy is the product of deliberative talk about public affairs, not the melange of chatter that goes on in coffeehouses and office places, even if politics emerges now and then along with other idle matters.

As with all good theory, Schudson's challenge realigns the thought of earlier theorists who, before the challenge, all seemed to belong to one camp. Now, it is easy to see that there are two camps – those who hold that casual conversation and informal association breed public opinion, and those who hold, with Schudson, that conversation and political talk are different things. We may now discern that Schudson's side might include researchers who perceive that politics is divisive and that it is often avoided in casual talk. This is implicit in Noelle-Neumann's (1993) silent minority and in Eliasoph's (1993) ethnography of informal associations, in which even avowedly political groups avoid politics lest they alienate each other or be alienated from the larger society. Postman's (1985) critique of television as unable to sustain a rational argument also shares this view, however implicitly.

Habermas seems somewhere in-between. On the one hand, his "public sphere" requires participants to check their status at the door in order to nullify self-interest, ensure equality, and permit rationality to guide the discussion toward an optimal solution for the commonweal. On the other hand, Habermas points to London coffeehouses and French cafés and salons as the ideal loci for such conversations. As "communication actions" in the public sphere, maintains Habermas, conversations should be altogether different from "strategic actions" in the political system, such as formal discussion and rule-based rational debates.

Clearly on the opposite side of Schudson, we find writers like Gabriel Tarde (1899), who thought that the informal conversation of cafés and salons mediated between press reports of the political agenda and a considered public opinion. This point is reiterated in Herbst (1994). And Smith and Zipp (1983) found that informal personal relationships with party officials promoted frequent political discussions, which, in turn, enhanced citizens' political participation. Lazarsfeld's (Katz & Lazarsfeld, 1956) two-step flow implies, too, that conversation about consumer behavior, fashion, movie-going, and public affairs are the subjects of everyday conversation among members of the public and their opinion leaders.[1] Among contemporaries, it seems safe to say that William Gamson (1992) would take this side, at least in the sense of implying that ordinary people are capable of discussing politics in the same ways they discuss other things.

Gamson (1992, p. 4), in particular, contends, from his analysis of political conversation among Boston working people, that many "middle Americans" are "not so dumb" and "not so passive" as others assume, and that they "negotiate" the meaning of media messages about politics and other subjects in complicated ways. In this negotiation, conversation plays a vital part. In his analysis of focus group interchanges, Gamson finds that ordinary people may not readily recall many of the "facts" of political life such as the names of legislators or judges or the formal titles of bills or laws. They are, however, perfectly capable of discussing political issues that affect them – such as affirmative action or tax increases – with reasonable sophistication and civility.

Mondak (1995), comparing the relation of news use and political talk in Pittsburgh and Cleveland during a Pittsburgh newspaper strike also emphasizes the effect of informal, unexceptional, workaday political conversation. Voters, he argues, sample their social networks for cues about political behavior, but he does not find that formal persuasive efforts launched by small numbers of active citizens hold much sway with either apathetic or uninformed citizens. Rather, he asserts, most voters "cast a wide net" to acquire political information. "Voters do pay some attention to news reports, debates, and campaign advertisements, but voters also elicit relevant information from everyday life," he states. "Political discussion contributes to that information mix, with resulting influence on electoral choice."

The Loci for Political Talk

Wyatt and colleagues (Wyatt, 1991; Wyatt, Katz, Levinsohn, & Al-Haj, 1996) have measured how free respondents felt to speak up in 10 public and private communication loci in the United States and in Israel, among both Arabs and Jews. These loci included the family home, the homes of friends, at work among fellow workers, at work around the boss, at parties, in restaurants or bars, at sports events, out shopping, and at worship. All three cultures ranked their own home and the homes of their friends in first and second place respectively, and all three groups felt "very free" in such familiar spaces. Respondents, however, felt only "somewhat free" in the more inhibiting "public" locales. For Americans, the least free location proved to be at work around the boss. For Israeli Jews and Israeli Arabs, the place of worship around the minister was most uncongenial, beating out the workplace for the lowest position.

The researchers also examined various factors that inhibit people from saying "what is on their minds" in ordinary conversation. They found that, in all three cultures, issues or sociability and the fear of harming or offending others or hurting their feelings proved generally more important than fear of punishment, disapproval, rejection, or government surveillance, or than psychological insecurity. Even the most salient items, however, proved only moderately constraining for all three groups. Although these findings do not apply narrowly to political conversation, they suggest that civil conversation is the norm across cultures and that talk, even in hostile environments, is not severely impeded by internal or external considerations. If these studies provide any clue – despite the theoretical objections of, say, Schudson or Habermas – the more intimate circles should be the loci of the greatest amount of political talk. Such political talk should also be informal in nature, and there should be no radical demarcation between political talk, aimless chatter, and personal conversation.

Simonson (1996), in an analysis of several important communication theorists' "dreams of democratic togetherness," also identifies various spaces where face-to-face political conversation might take place. Among these he includes "lifestyle enclaves," voluntary associations, and community gathering places. In the lifestyle enclave, Simonson argues, shared tastes and interests unite like-minded individuals, and their relationship possesses some degree of political significance – though the weakest of the three loci. Lifestyle enclaves, we would note, are similar to the family home and the homes of family and friends in the typology adopted by Wyatt et al. (1996).

Simonson's voluntary associations possess the strongest political purpose and the clearest boundary of the three spaces – and seem to be most closely related to the formal and purposive environs of democratic deliberation described by Schudson (1995). Neighborhoods and communities, by contrast, more closely correspond to the bars and restaurants – and perhaps the shopping spaces – measured by Wyatt et al. (1996). "Cordial chat" dominates such spaces for Simonson, "a kind of talk that is neither as intimate and topically focused as the conversation in lifestyle enclaves nor as purposive as the deliberation of voluntary associations." Simonson's typology thus ranges from the formal deliberation to the easy chat envisioned by others; whether his conception can, however, find empirical support remains an open issue.

Previous Measures of Political Talk

Given the theoretical weight assigned to talk about politics in various understandings of the public and the public sphere, surprisingly little is known about the nature and the amount of political conversation. In fact, the notion that Americans talk about politics infrequently and guardedly seems to be based largely on anecdote, surmise, and conjecture – or on answers to single survey questions boiling down to "How much do you talk about politics?" These questions, however, usually leave the definition of politics to the respondents' imaginations – allowing the meaning to range, say, from the amount one talks about "insider" issues and personalities in the city/state/nation, to the amount of formal debate or argument about politics one engages in, to the amount of conversation about inflation, education, or crime.

Whatever the case, such questions are too broad to provide appropriate estimates of the frequency of political conversation in the variety of "spaces" in which such talk might take place. The question form also tends to imply that respondents should report the amount of conversation about politics only as narrowly – if indeterminately – defined. In fact, the use of the term "politics" in such questions may itself focus too directly on the workings of government and political campaigning. It may thus exclude talk about politics as defined more broadly to include, say, education and the schools, workplace relations between the sexes, the economy, crime, or happenings in foreign countries.

Our best source of data about U.S. presidential elections, the National Election Studies, illustrates this tendency to restrict political talk to explicit campaign issues and to use the word "talk" to mean something formal and rhetorical. This inclination is particularly evident in the extensive questions about the sources of personal information and persuasion during a campaign. Thus, in some questions, the word "talk" is used in a sense that implies "persuade" ("During the campaign, did you talk to any people and try to show them whey they should vote for or against one of the parties or candidates?"). At other times, however, talk is used to imply "examine," "debate," or "discuss." Since 1984, for example, the NES has asked, "Do you ever discuss politics with your family or friends?" And follow-up questions inquire: "How often: Every day, 3 or 4 times a week, once or twice a week, or less than that?" and usually "How many days during the past week did R talk politics with R's family or friends?"

The amount of political discussion among family and friends is, of course, associated with voting behavior in the NES. For example, among those who said that they "ever discuss" politics in 1992 (80%), 71% reported that they had voted in 1988. But the number of days politics was discussed did not have a simple, linear relation with voting. And, because the talking-politics questions were included on the re-interview after the election – and the overwhelming majority of those consenting to the follow-up session reported that they voted in 1992 – the question can be correlated only with previous reported voting behavior among a presumably active sample. This severely limits our ability to examine the uses of talk in models intended to describe the function of interpersonal relations in political activity. Further, the general neglect of talk over the history of the NES indicates the relative inattention survey researchers have given to communication variables in the political process.

Another indication of this general inattention is found by examining the General Social Survey. Only twice in its history stretching back to the early '70s has the GSS included questions about political talk. As part of the module on social networks, GSS respondents were asked, "From time to time, most people discuss important matters with other people. Looking back over the last six months, who are the people with whom you discussed matters important to you?" The 1985 questionnaire then asked: "Thinking of the (people/person) we've just been discussing, would you say you discuss social and political issues with (him/her/them) almost all the time, most of the time, occasionally, or almost never?"

Significantly, this question is the only content-specific question about talk in the social network module. No questions address talk about, say, religion, personal matter, entertainment, or crime. Further, the phrasing of this question to include both "political and social issues" may tie the discussion of politics to issues of social morality rather than to more commonplace affairs of daily life.

The 1985 question did, however, prove to be a significant predictor of reported voting, and it does provide a fairly optimistic assessment of the amount of political talk the American mass public may engage in. For example, 18% of respondents reported that they discussed politics almost always, another 19% most of the time, more than half (53%) at least occasionally, and only 10% almost never. Talking politics was significantly though weakly related to respondents 1985 self-report of voting in the 1980 (Kendall's $\underline{\text{tau}}_c$ = .10, $\underline{p} < .001$) and the 1984 (Kendall's $\underline{\text{tau}}_c$ = .08, $\underline{p} < .001$) presidential elections.

In 1987, after the introductory social network question, respondents were asked about their level of political talk with the first three persons with whom they discussed important matters. Here, the question was: "About how often do you talk to (NAME) about political matters?" The response set was: "almost daily," "at least weekly," "at least monthly," "at least yearly," "less than yearly," and "never." With this question, the context for political talk was more open and less defined than in the 1985 item. Here, 15% of the sample reported political discussion with the first-named confident almost daily, 22% at least weekly, and 19% at least monthly. That means that more than 41% of the sample, however, held such discussions at least yearly or less with the person first mentioned. For the second- and third-mentioned confidant, talk falls off dramatically, to about 7% daily for each, 18% and 16% at least weekly, and 27% and 25% at least monthly. Still, talk about political matters with the primary confidant in 1987 proved significantly predictive of reported voting in the 1984 presidential election. For the first confidant, the correlation was, however, modest (Kendall's $\underline{\text{tau}}_c$ = .24, $\underline{p} < .001$), and it declined further for the confidants listed second (Kendall's $\underline{\text{tau}}_c$ = .18, $\underline{p} < .001$) and third (Kendall's $\underline{\text{tau}}_c$ = .17, $\underline{p} < .001$).

The few remaining questions about political conversation in other polls indexed in the database of Roper Center for Public Opinion Research are also open to objection for the too narrow definitions of politics they imply. For example, a 1989 survey of registered voters conducted for NBC News and the Wall Street Journal by Hart-Teeter Research asked: "How often do you talk about government, politics, and public affairs with your family and friends – a great deal, quite a bit, some, only rarely, or almost never?" This question – again tending to center politics on the workings of the formal government – found 18% responding that they talked politics a great deal, 26% quite a bit, 33% some, 15% only rarely, and 7% almost never. An even more limited question about political talk was asked in a CBS News/New York Times survey of national adults: "During this [1988 Presidential] campaign, have the commercials for George Bush or for Michael Dukakis that you've seen…led you to discuss politics with somebody else, or not?" Only 38% said yes; 50% responded no.

A more interesting – though problematic – question was asked in 1960 by the Center of International Studies, Princeton, of another sample of American adults: "If you wanted to discuss political and governmental affairs, are there some people you definitely wouldn't turn to – that is, people with whom you feel it is better not to discuss such topics. About how many people would you say there are with whom you would avoid discussing politics? (Take down full response. If specific people mentioned find out how many people there are.)"

Coded responses indicated that 18% never talked to anyone about politics. Another 19% reported that there were "many people" with whom they could not talk politics. About one-third (32%) indicated that there were only a few people with whom they could not talk politics, while more than one-fourth (28%) responded that they could talk politics to anyone without restriction. These results might leave researchers wishing for more precise measurement and hoping for other replications. Still, the findings indicate that nearly two-thirds of Americans in 1960 could discuss politics narrowly defined with few or no restrictions – a condition considerably more optimistic that those who agree with Schudson and, a fortiori, with Noelle-Neumann.

Research Questions

Given the paucity of measures of political talk in survey research, the vagaries surrounding definitions of what politics consists of, and the ubiquitous failure to consider the variety of "spaces" within which conversations about politics emerge, we set out to devise a new method for measuring talk about things public and private. Within this context, we addressed empirically a number of questions:

First of all, we asked what is "politics?" Is talk about education or crime included when respondents say that they talks politics? Or does talk about education and crime, instead, more narrowly focus on domestic issues concerning the safety and well-being of the family? Is conversation about religion political or intensely personal or both? Is talk about the economy a political issue – or is it more closely related to personal issues? Does the phrase "talking about politics" focus too narrowly on the workings of government itself – personalities, bureaucratic institutions, campaigning, "courthouse" and inside-the-Beltway issue – and not enough on the wide variety of topics that have broader political relevance?

We also wondered how different "spaces" affect the ways various topics are talked about. Is talk about politics at work different from political talk at home, at worship, or at organizations? Are topics such as, say, crime or education considered political – in the sense that they are discussed alongside governmental concerns – if the discussion is held in "public" loci? But are the same subjects considered personal when discussed at home – where crime may be an intense proximate concern?

To address these questions, we developed a battery of nine relatively specific items asking about the frequency of conversation about happenings in national and state government, the economy, personal and family matters, religion, entertainment, and the like. We then asked respondents to estimate how much they talked about these items in different spaces, including the home "among family and friends," the workplace, out in public, and at the place of worship.

Given the common propensity to distinguish between the "public" and "private" dimensions of life both among theorists of democracy and in lay discourse, we theorized that the nine items would cluster into public and private – or political and personal – facets or factors when analyzed by multidimensional scaling and factor-analytic techniques designed to probe latent relationships among variables. We anticipated that some items would be more closely aligned with the "public sphere" centering on national, state, and local government, while other items would cluster into the "private sphere" centering on personal matters. Thus, a priori, we defined national and state government at the "centroid" for the public sphere and personal and family matters as the centroid for the private sphere.

We also hypothesized that, as the locus of conversation changed, some items would be talked about differently – shifting from the private to the public sphere as they were discussed more in terms of governmental action and less in personal terms. Thus, we thought that certain "bridge" items might emerge that ranged back and forth between the public and the private; if this were the case, we believed, the tendency of certain scholars to distinguish radically between political talk and personal talk would be called into question.

We also wanted to know how free respondents felt to talk about each of the subject domains in general. We felt that, if political talk was conceived of as a divisive, difficult, threatening, or segregated activity, respondents should feel substantially less free to talk about the public-affairs items than about personal issues. But, if respondents felt reasonably free to talk about these political matters, the interpretations of Schudson and similar scholars would be called into question.

Throughout, then, we focused on three questions: How much talk about various subject-specific items do respondents engage in – both in general and in different loci? How do respondents conceive of these subject-specific items in terms of their relation to public and private concerns? And how free do respondents feel in general to talk about these subject-specific items.

Method

Survey Sample

A nationwide telephone survey of 1,029 adults from the 50 U.S. states was conducted in May 1996 by a commercial research firm using computer-assisted interviewing and random digit dialing. Once an eligible English-speaking household was contacted, respondents were systematically chosen by rotating gender and age. Among households with known eligible respondents, 685 individuals either refused to be interviewed or terminated the interview before completion: the cooperation rate was 60%. Fifty-six percent of the sample was female. For age, 31% were 18-34, 35% were 35-49, 20% were 50-64, and 15% were 65 and older. Whites made up 84% of the sample, blacks 9%, and those of other or mixed race 7%.

The U.S. Census Bureau (1996) estimated that, for the U.S. population above age 18 in June 1996, 52% were female. For age, 33% were estimated to be 18-34, 32% were 35-49, 18% were 50-64, and 17% were 65 and older. For the entire population, race estimates were 83% white, 13% black, and 5% of other or mixed race. Given the acceptable distribution of the survey demographics, data were not weighted in this analysis to avoid difficulties with multidimensional scaling and structural-equation modeling programs.

Instrument

In formulating the survey instrument, we were determined to avoid the use of the term "politics" when we devised the battery of questions to measure talk about political concerns because we feared that the term would be conceived too narrowly. Instead, respondents were asked whether they talked about each of nine content-specific items "often," "sometimes," "seldom," or "never." We asked first about the amount of talk "in general" for these nine items and then in each of six loci: the personal home and the homes of friends and family; clubs, community and civic organizations; worship; bars, restaurants and shopping malls surrounded by both friends and strangers; work; and e-mail or on the Internet. We also asked how free in general subjects felt to talk about these nine items.

The nine content-specific items included "what the President, the national government and the Congress are doing," "what your state and local government are doing," "what is happening in foreign countries," "how the economy is doing," "the crime situation and violence in society," "what is happening in your personal life and your family," "what's going on in the schools and education," "your religion and religious beliefs," and "what is happening in sports, television, music or the movies." Items were presented to respondents in random order within each locus to control for question-order effects. Demographic information and a variety of other attitudinal and opinion items related to political opinion and political participation were also included in the questionnaire for use here and in other studies.

Analysis

To define the "deep structure" of any latent variables underlying the nine talk items in each locus, exploratory factor analysis and multidimensional scaling were used. Maximum-likelihood factoring with oblique rotation and an eigenvalue of one as a stop criterion was employed as an exploratory procedure to extract factors with the greatest chance of confirmation in future studies.

In order to map spatially and conceptually how each of the nine content items was talked about in general and in each specific loci, multidimensional scaling was adopted, using the nonmetric smallest space analysis procedure (SSA) developed by Louis Guttman (1968) together with Guttman's facet theory. In facet theory, each spatial diagram is partitioned into categories or "facets" according to predefined criteria based on deductions derived from theory. Here, we felt relatively certain that items would fall into public and private facets and that certain "bridge" items might form a facet on their own. Such bridge items would move closer to the public or private facets, depending on the locus of conversation. However, we could only guess at which items would be included in which facets, given the paucity of previous research – a sorry state of affairs that Guttman would never have countenanced. Thus, we used exploratory factor analysis to provide a clue as to which questions should be assigned to which facets. We then tested the resulting facets across the different loci, using SSA as a confirmatory procedure.

For the SSA analysis, the researchers used Faceted Smallest Space Analysis (FSSA), a computer program developed by Shye (1991, 1994) that first maps the items, then mathematically partitions each conceptual map according to the predefined facets. In partitioning the space to fit a model, FSSA produces a spatial map in which the location of each item reflects the strength of its relation with all other items. Then, for each facet, in turn, the program attempts to partition the map in three ways: first with parallel lines, then with radial lines, and finally with concentric circles, each representing a possible meaningful relationship among elements. The program also provides a separation index ranging from 0-1 to assess the goodness-of-fit of the facet scheme to the data. The separation index may be interpreted much as, say, Cronbach's alpha is used to measure the reliability of an additive scale. Because the talk items were scored on ordinal scales, FSSA calculated the monotonicity coefficient to produce the input matrix.

Results

Overall Levels of Talk

The general talk variables produced the highest estimates of conversation, averaging more than "sometimes," M = 2.13, across the nine specific subjects (see Table 1). Subjects' homes and the homes of family and friends produced the greatest amount of average talk among specific loci; at home, talk averaged a bit above "sometimes," M = 2.01 across the nine items. Next came talk at work, M = 1.86, followed by clubs and civic organizations, M = 1.71, then the place of worship. At the place of worship, conversation about public and private affairs is relatively sparse – between "seldom" and "sometimes," M = 1.48. After the place of worship fell bars, restaurants and malls among both friends and strangers, M = 1.39. Then, in last place, cam "talk" in e-mail or in Internet discussion groups. Surprisingly, average talk about these nine public and private topics in e-mail or on the Internet fell below "seldom," M = .93. This may indicate that most users employ this new communication medium for utilitarian purposes not enumerated in our questionnaire.

Insert Table 1 about here

Freedom To Talk About Each Subject

Respondents were also asked how free they felt "to talk about each of these subjects in general whenever they come up in conversation." Responses were, "very free," "somewhat free," "slightly free," or "not at all free." The means for all items ranged between very free and somewhat free, indicating that subjects did not feel particularly inhibited when any subject was raised. They felt freest to talk about crime, followed by sports, education, the economy, state government, national government, foreign affairs, religion, and personal matters (see Table 1). These results indicate that the subjects about which respondents felt most inhibited were personal, not political issues. There was a moderate correlation, r = .42, between additive scales measuring how free respondents felt to talk about the nine items and how much they talked about them in general.

Exploratory Factor Analyses of Talk Items and Loci

In order to understand better the relation between the various subject-specific items, exploratory factor analysis was conducted on the nine general talk variables. The analysis produced two factors: one we called Political Talk and the other we termed Personal Talk. Both the Kaiser-Guttman rule and a scree test suggested the two-factor solution, though a chi-square test of residuals suggested that a three-factor solution might be more appropriate. The three-factor solution, however, produced a weak and uninterpretable third factor. Importantly, a separate "bridge" factor failed to emerge. Thus, a two-factor model was adopted.

National affairs, state and local affairs, the economy, and foreign happenings loaded highest on the Political Talk factor, while education, religion, crime, personal matters, and sports/entertainment loaded highest on Personal Talk (see Table 2). Although we initially wanted to designate the two factors Public Talk and Private Talk, we came to feel that the connotation of the terms might imply greater theoretical distinction than the loadings justified – particularly given the rather weak showing for the second factor. We also felt that the inclusion of additional items might split the Personal Talk factor into additional factors. In fact, the Personal Talk factor represents something of a miscellany of items distinguished more by their distinction form Political Talk than their own commonality – as confirmatory factor analysis and multidimensional scaling also suggested. Confirmatory factor analysis (LISREL), in fact, demonstrated the integrity of Political Talk but not of Private Talk.

The two factors accounted for 34% of the variance – due in part to the weak relation among the Personal Talk variables. Importantly, there was a moderately high correlation (r = .57) between Political Talk and Personal Talk. This indicates that respondents who talk more about one factor tend also to talk more about the other – that private matters and public affairs are not isolated from each other in general conversation. The factor analysis also suggested that, in talk in general, crime and education – surprisingly – are talked about more in terms of their personal and family dimensions than their political relevance.

Insert Table 2 about here

The same structure is also evident when the locus shifts to the home. Again, a Political Talk and a Personal Talk factor emerge with much the same loading as the general-talk variables (see Table 3). In the home environment, the cross-factorial nature of talk about crime is, however, more evident than among the general-talk variables. At home, this analysis suggests, crime bridges the gap between political and personal talk. Here, the factors account for a more robust 49% of the variance.

Insert Table 3 about here

When talk in the workplace is factored, however, crime and education move over into the Political Talk column, indicating that the focus shifts to the public and governmental dimension and away from the personal aspect of these two "bridge" variables (see Table 4). At work, the cross-factorial quality of education becomes particularly pronounced, and crime also edges across factors. This time, the two-factors accounted for 47% of the variance and displayed a healthy correlation ($\underline{r} = .55$). The correlations of the factors in general, at home, and at work (see Tables 2, 3, and 4) indicate that Political Talk and Personal Talk are not radically distinguished and that individuals who tend to score higher on one type of talk also score higher on the other.

Insert Table 4 about here

For the other loci of conversation, we will summarize findings only briefly. The worship (N = 639) locus and the restaurant/shopping (N = 939) space both produced single-factor solutions – perhaps indicative of the lower levels of conversation about all topics in these places. The public-affairs organization locus (N = 350) yielded the familiar two-factor solution, with crime and education, however, loading rather evenly across both factors. The e-mail environment (N = 132) found crime loading highest on the Political Talk factor, while education loaded highest on Personal Talk.

Based on these exploratory factor analysis, the investigators decided to classify national government, local/state government, the economy, and foreign happenings in the Political Talk facet for further descriptive analysis and for conceptual mapping using Faceted Smallest Space Analysis (Shye, 1992). Personal and family matters, religion, and sports/entertainment were assigned to the Personal Talk facet, admittedly a diverse construct. Crime and education then were assigned to the Bridge Talk facet. Bridge Talk, as we observed, may take on either a private or public focus, depending on the locus of conversation – a function that should be evident in the spatial maps produced by SSA.

It is important to understand that none of these three facets reflects any single factor in any single factor analysis. We did feel, however, that the Political Talk, Personal Talk, and Bridge Talk facets are fully justified by our initial theoretical ruminations and by the way each subject floated from factor to factor in each locus. Thus, we hypothesized the existence of Bridge Talk, then employed SSA to test its validity as a construct across loci. This classification scheme, if confirmed by SSA, should then help us build a broader theory of talk about political and personal subjects in different spaces. But, in offering this three-facet scheme, we must reiterate that there are good correlations between the factors that emerged from factor analysis. Thus, the facets, though distinct, are not radically separated from one another; they are bordering counties on a small map of the conversational landscape.

SSA Maps for Each Locus

To make the relations among Political Talk, Personal Talk and Bridge Talk more apparent, we next examined SSA concept maps for talk in general and for each locus. In such maps, the relative positions of variables indicate their closeness or distance from each other in the "composite mind" of the sample. How well these maps partition into facets will determine the adequacy of our classification scheme in describing respondents' perceptions of the relations between each of the nine subject-matter variables.

Here we will examine each of the loci in order, beginning with the most "typical" – those in which the greatest number of subjects responded to all items – such as general talk, talk among family and friends, and talk in commercial space. We will then continue with work and worship, where Ns were around 600. Finally, we will consider loci with the lowest response: organizations, N = 351, and e-mail, N = 132.

First, as Figures 1 through 7 make apparent, Faceted Smallest Space Analysis (Shye, 1992) easily partitioned the variables in each locus into the three facets of Political Talk, Personal Talk, and Bridge Talk. Whether the program used parallel lines, concentric circles, or radial lines, the partitions fell into place around the appropriate variables. In fact, for each locus, there was a perfect fit, separation index = 1.0, confirming the generalizability of the facet scheme across the conversational loci. Because the general talk variables produced the most typical map, we will first examine the conceptual scheme displayed in Figure 1.

As is readily apparent from Figure 1, the four Political Talk variables are closely clustered at the opposite side of the map from the single Personal Talk variable measuring conversation about personal and family matters. Buffering the Political and the Personal spheres are the Bridge variables of crime and education, which fall at the center of the map. At work and in other loci, we will see these Bridge variables swing toward the public side; here, they indicate that there is no radical disjunction between talk about things public and private, although they remain discrete entities. In factor analysis, one should recall, the Bridge variables were assigned to the Personal sphere in the general talk locus – again suggesting that the private dimension of these admittedly public issues receive precedence.

Also notable in this diagram is the wide spacing among the three Personal Talk items. In fact, talk about personal matters is no more distant from Political Talk than from chat about sports and entertainment or conversation about religion. And crime and education are about as close to political items as they are to any of the other Personal Talk variables (with which they fall in factor analysis). If the left-to-right axis of the SSA map can be interpreted as representing the Political-Personal pole, the top-to-bottom axis might range from the most serious or cloaked subject (religion) to the most trivial and open matter (sports/entertainment). Given such an interpretation, Political Talk, Bridge Talk, and the single variable representing talk about personal and family matters are all of intermediate seriousness or openness.

The large areas of empty space in the map indicate need to be filled in by additional variables in future research, however, before the above interpretation becomes assured. In fact, it is intriguing to speculate where items such as talk about "your personal philosophy of life," "your beliefs about the goodness or badness of human nature," "exercise and health," "serious medical problems," "racial discrimination," "injustice in the workplace," "card and board games," "business contacts," and the like might fall. The sports and entertainment variable, too, might be split into a variety of categories, ranging from serious drama to mindless entertainment.

It is also worth noting that, in other data (Kim, Wyatt, & Katz, 1997, May), the general Political Talk factor proved to be the best predictor of political involvement (letters to media and politicians; attendance/speaking at meetings; working in campaigns; voting intention) among a wide array of demographic, attitudinal, and opinion measures. The strength of the Political Talk factor was affirmed by a path model that controlled for standard demographics (age, race, gender, income, education), media use (newspaper and television news), Personal Talk (including the Bridge variables), and quality of opinion (consistency; amount of opinion v. no opinion). Thus, more than just a theoretical construct in a typology of conversation, Political Talk proved to be a robust predictor of reported action.

When we turn to the locus of family and friends (Figure 2), we find a map virtually identical to the general-talk map (Figure 1). Crime does move a shade closer to public affairs;

education, on the other hand, stays at about the same place. Religion is nearer to personal and family matters; sports/entertainment is more isolated than in general talk; foreign affairs moves away slightly from the other Political Talk variables. But, overall, talk in the intimate circles of family and friends seems to be the model for the general-talk variables. This finding indicates that talk both in general and at home is not only the most frequent but also the most normative form of conversation as well. One should, however, not be fooled by the amount of space separating any variables in this or any other concept map; the Political Talk and Personal Talk factors and the variablles underlying are all significantly correlated. This is a map of a small space indeed.

As we examine other loci, we will see the distances among variables shift, but their relative locations will remain much the same. From map to map, the direction of the axes may rotate, but that is a trivial artifact of scaling with little meaning so long as the relative alignments of variables remain much the same – as they do.

Out in commercial spaces such as restaurants and malls – where respondents were around both familiar and unfamiliar people – the typical pattern established with general talk is again evident (see Figure 3). Granted, religion and sports have moved closer to the Bridge Talk and Political Talk variables as the individual becomes enmeshed in the commercial crowd. And education and crime, too, have edged closer to the Political Talk facet, as they become talked about more in external than in internal terms. Here, personal matters stand in isolation. But the overall relations of variables are maintained, and the three pre-identified facets perfectly partition the space.

Factor analysis, as noted, produced only a one-factor solution here – indicating that fewer distinctions are made among various kinds of conversation, and the low mean levels of talk for the nine variables may have helped obscured distinctions. Out in commercial spaces, we conclude, respondents talk about Political, Personal, and Bridge topics relatively little and make fewer distinctions among subjects as they talk about them, perhaps in non-controversial or non-offensive manners.

At work (Figure 4), we first notice a pronounced shift from the typical general-talk pattern: FSSA, in fact, produces a map markedly different from the "typical" general talk/home talk configuration. Although again the partitions fit the data exactly, crime and education are now proximate to the Political Talk variables – where factor analysis also assigns them – and the Political Talk and Bridge Talk variables are crowded into a corner. This implies that crime and education are talked about at work more in terms of governmental action than personal relevance. At home, as we saw, the focus is more personal and familial. Though talked about relatively infrequently at work, personal affairs and religion have now moved together – far from Political and Bridge Talk.

This configuration suggests that, when personal matters and religion are spoken of at work, the conversation is confined to intimate colleagues; we find a certain disjunction here between the political and the private. Sports and entertainment, though talked about as much as crime or education, stand off alone, widely separated from the rest of the personal and political variables. In fact, at work, if anything is talked about in isolation apart from private and public concerns, it is perhaps sport and entertainment – not "politics." Presumably, too, sports and entertainment represent non-threatening, non-serious, time-filling subjects for conversation.

The place of worship (Figure 5) provides another interesting contrast to the typical configuration for conversation – though again the facets fit perfectly. Here, sports/entertainment continues its isolation, though it moves closer to the Political Talk variables – perhaps, with the economy, forming a subject for easy, non-ego-involved conversation. For the first time, however, religion has moved away from its isolated position and edges toward the Public sphere – though the distance is still distinct. Education and crime also shift toward the Political Talk facet. Factor analysis identified only one factor here, suggesting that religion, personal life, and even sports are not talked about with as much differentiation at the place of worship as in more typical spaces. Here again, however, the relative level of conversation is low, scoring just above talk in commercial spaces and e-mail.

When we turn to clubs, community, and civic organizations – those vaunted organizations considered so essential to democracy by so many theorists – we find the familiar facets function perfectly again (see Figure 6). Here, however, religion moves between the more-isolated personal-talk variable and Political Talk – perhaps suggesting the quasi-religious or religious character of some organizations. Still, the greatest amount of talk is assigned to variables representing the public sphere. As factor analysis again identified only one factor, the lack of differential between Public Talk, Bridge Talk, and religion is not surprising. But the low number of respondents indicating any involvement in such organizations (N = 351) limits the usefulness of results from this locus, even though it is the prototypical space for public talk for scholars such as Schudson (1978, 1992, 1995) and Simonson (1996).

Finally, in e-mail and in Internet discussion groups (Figure 7), we find the Bridge Talk variables moving proximate to the Political Talk variables – with religion joining the cluster. Though religion is "talked" about least frequently in this locus, these results suggest that, when it is, its political dimensions are relevant to the focus. Personal and family matters, though also discussed relatively frequently (see Table 1), remain in isolation, as does talk about sports and entertainment. Although these findings are intriguing, the low number of respondents who use e-mail or Internet discussion groups limits their generalizability. Further, the variety of functions that computer-mediated communication is capable of – from intensely personal messages, to routine business, to sharply focused discussion groups, to "chat" – urges further research employing finer distinctions.

All in all, however, these findings across the six loci and general talk imply, we believe, that politics and political subjects are talked about relatively frequently and that they are not discussed in sharp isolation from other topics of conversation, a finding amplified by factor analysis. Although the level and nature of talk shifts form locus to locus, Political Talk and Personal Talk are not radically demarcated but form a continuum, with Bridge Talk spanning the middle.

The Amount of Talk in the Three Facets

To understand how the levels of political conversation compare with other topics in various loci, we examined the means and rank orders of the nine specific topics across the general talk variables and the six specific loci. Granted, means are not the ideal measures of the central tendency of ordinal variables, but they are convenient for ranking general priorities. As Table 1 makes apparent, the "bridge" variables of crime and education achieve the highest overall rank orders. Crime, for example, scores first in general talk, at home, and at work; ranks second in commercial spaces and in organizations; rates third at worship; but drops to sixth place in computer-mediated communication. In a preponderance of loci, as Table 1 also indicates, crime and education not only bridge the gap between the public and private spheres but are also the most salient topics of conversation – countering claims that political talk and Personal Talk proceed by entirely different rules. Political Talk ranges around the middle of the rank order across loci, with the economy falling fourth, state and local government sixth, national government seventh, and foreign events ninth.

Personal and family matters fall squarely in the middle of the rank order, scoring third in general and at home, fourth at worship, fifth in commercial spaces, seventh at work, and eighth in organizations. The personal character of computer-mediated communication may be overstated by the second place score for personal and family matters, trailing entertainment and sports in first place. Our nine subject domains did not include utilitarian workplace communication such as memoranda, orders for goods, sales contacts, and the like.

Except for foreign happenings – which may lack salience for most respondents – religion scores as the least-talked-about subject. Religion does rate first place at the place of worship – where its frequency of conversation is higher than talk about any other subject anywhere else. But religion drops to eighth spot in general talk, at home (an intriguing finding), and in commercial spaces. And it scores dead last at work, in civic and social organizations, and in computer-mediated communication. Thus, if any topic area is talked about guardedly and infrequently, it is not the plethora of public and bridge topics, nor personal and family affairs, but religion – which is spoken about seldom except in it's own sanctuary-like space.

Sports and entertainment talk, however, seem just the opposite. Scoring fifth and fourth in general and at home, they are the No. 1 topic out in commercial spaces and the No. 2 subject at work – where they may fill time without threatening egos or invading personal space. But one should not forget that sports, in particular, can be a highly incendiary topic focusing on personal and regional pride and leading to confrontation where fans of different teams mix.

Demographic Predictors of Talk in Various Loci

Because the talk variables for each locus all formed highly reliable additive scales, analysis of variance employing experimental sums of squares was used to determine how common demographic categories – age, income, education, gender, and race – were related to expression levels. The level of weekly newspaper readership and television news-watching were introduced as covariates. For general talk, only education among the demographics proved significant, $p < .001$. Newspaper use also proved significant, $p < .001$, but television news viewership did not – probably because newspaper use is a more purposive form of political and social involvement. Frequent watchers of television, on the other hand, are also – almost by default – also heavy television news consumers. The zero-order correlation between amount of weekly newspaper readership and general talk was, however, low, $r = .19$, $p < .001$.

For talk at home, age and education both proved significant, as did newspaper readership and television news viewership. With age, the big difference was found in those 65 or older, whose adjusted score fell substantially, -.28, below the grand mean, $M = 2.03$. The high-school-education-or-less category also scored below the mean, -.10. The zero-order correlation for newspaper readership and talk at home was again low, $r = .16$, as was television news-watching, $r = .13$. The family that consumes news together apparently also talks together.

In the workplace, the only significant predictor of overall talk was newspaper readership, $r = .15$, though age and education approached significance. At the place of worship, age alone reached significance. From the grand mean, $M = 1.54$, the adjusted deviation for the 65 and older group was -.47, while the other groups fell very near the mean. Out in restaurants and malls – around both familiar and unfamiliar people – age again proved significant, as did gender for the first time. Media use, however, showed no effect. From a grand mean of 1.39, the 65-plus group deviated substantially lower, -.42. Males, too, scored markedly higher, .09, than females at -.08. This demonstrates that – as surroundings become less familiar – females talk less often and perhaps less freely. In organizations, only newspaper readership proved significant, zero-order r = .19. In computer-mediated communication, no demographic variables reached significance.

All in all, the effect of age on amount of talk is particularly apparent; those over 65 simply seem to communicate less generally in public and private – perhaps a reflection of the relative isolation of some in this age group. Education also exercises a significant influence, with the better educated tending to talk more. And newspaper readership is a significant correlate of talk, though television news-watching occupies only a marginal role. Only out in commercial spaces, however, does a gender difference rear its head.

Summary and Discussion

Students of the public sphere such as Schudson (1995), Postman (1985), Eliasoph (1993), and Noelle-Neumann (1993) argue in various ways that political talk is a form of discourse separate and apart from normal conversation because it is difficult and divisive and because it strains interpersonal relations. Political talk must therefore proceed primarily in safe, protected, even contrived environments such as salons, public-affairs organizations, or legislatures – where formal rules and procedures protect the politically weak and those in the minority from the predatory rhetoric of the strong and the majority. Such rules – bent on encouraging, in Habermas' (1989, [1962]) terms, a selfless rational-critical public discussion – markedly separate political talk from common conversation. For such scholars, ordinary conversation devoid of politics is, by contrast, companionable, pleasurable, non-instrumental, and non-purposive.

Other students of politics such as Tocqueville (1969, [1840], Tarde (1989 [1901]), Dewey (1929), Putnam (1993, 1995), Katz and Lazarsfeld (1956), Gamson (1992), and Simonson (1996) have suggested variously that political talk and everyday conversation meld together – at least in some spaces. They believe that interlocutors shift readily from the discussion of political issues to aimless chat to conversation about personal issues in a fashion that does not markedly separate the public from the private sphere.

For the first group of scholars, political talk is primarily the stuff of formal debate and purposeful persuasion and is avoided in other contexts. For the latter, politics is less rigidly defined as one of the elements of ordinary life to be discussed – and sometimes debated – together with other common events such as a recent streak of weather, a spate of airline accidents, the quality of a movie or TV show, the cause of a child's failing grades, the price of automobiles, or the prowess of the local college coach.

The results of our study should reassure those of us who believe that talk is the soul of democracy and that "private" talk, even among family and friends, has important public consequences. Our data suggest that national affairs, international affairs, state and local affairs, and the economy are discussed with reasonable frequency (near "sometimes") in general, at home, and at work – though they are discussed less often at civic organizations, at worship, or out in commercial spaces. Regardless of the subject, we found, respondents feel reasonably free to talk about any of our nine subjects.

When subjected to factor analysis, a Political Talk and a Personal Talk factor emerge for talk in general and talk at home, work, civic organizations, and even in e-mail. But, depending on the locus, crime and education move toward one factor or another – suggesting shifts of emphasis from the personal and familial to the political and societal depending on the location of conversation. Whatever the locus, however, good correlations emerge between factors, indicating that increasing talk tends to proceed across subject domains.

Given the shifting role of crime and education from locus to locus, we hypothesized that these two subjects might function as "bridge" variables when mapped by multidimensional scaling using Smallest Space Analysis. Interpreted according to Guttman's (1968) SSA and facet theory, crime and education indeed do form a Bridge Talk partition in every locus (see Figures 1-7). In every locus, national, state, and foreign affairs and the economy also form a discrete

Political Talk facet. Though separated from the redefined but still miscellaneous Personal Talk facet – which consists of conversation about personal matters, religion, and entertainment and sports – Political Talk is not isolated. For Bridge Talk intervenes to produce a continuum ranging across subject domains in all loci of talk. Although the ways Political Talk, Bridge Talk, and Personal Talk are construed in various loci shift – as multidimensional scaling and factor analysis suggest – their essential spatial relations are maintained in each mapping scheme.

Rather than belonging to the exclusive domain of public spaces, we found, Political Talk takes place most frequently in one's own home or the homes of friends or family – where most public media, including newspapers, television, and magazines, are available and consumed. As various scholars have argued, news media are effective stimuli of political conversation and participation; thus, the amount of political talk among family and friends should not be surprising. Further, as other parts of this study make clear, Political Talk proved to be the best single predictor of political participation. Conversation, it seems, is more than mere talk; it leads to action.

These findings appear to embody precisely what Morely (1990) had in mind when he urged scholars to "reframe the study of political communication in the media within the broader context of domestic communication (involving the interdiscursive connections of broadcast and other media, family dynamics, and gossip networks)." Our results also counter Simonson's (1996) supposition that personal spaces are weaker loci for talk about public affairs than voluntary associations and community gathering places. By contrast, in our data, clubs and civic organizations, restaurants and bars emerge as weaker fora for public talk than the home.

One's own home and the homes of family and friends are, we would argue, the loci where the public sphere finds its typical realization in contemporary society. The electronic cottage is, we urge, an integral part of the public sphere. In that cottage, conversation about crime and education (Bridge Talk, though personal in emphasis) lead the list; followed by personal matters and entertainment (Personal Talk); then the economy, national, state, and local government (Political Talk); then religion (Personal Talk), and, last, foreign affairs (Political Talk). Within this public cottage of ours, most subjects comprising Political, Personal, and Bridge Talk are spoken about on average at least "sometimes." Moreover, such talk – though perhaps not the structured disputation that some democratic theorists advocate – tends to lead to action in the larger public sphere.

Given the vagaries of survey research, we cannot be certain precisely how much talk "sometimes" represents, nor can we be sure how other talk items omitted from the present study would rank, nor whether other dimensions of conversation would become manifest. But we feel confident that the rank orders that emerged from respondents' perceptions fairly represent how they construe their own conversation and that the factor analyses and conceptual maps we produced reasonably capture their mental geography. Given these findings and these caveats, we join Barber (1984) in proclaiming:

> At the heart of strong democracy is talk. As we shall see, talk is not mere speech. …Talk remains central to politics, which would ossify completely without its creativity, its variety, its openness and flexibility, its inventiveness, its capacity for discovery, its subtlety and complexity, its eloquence, its potential for empathy and affective expression, and its deeply paradoxical (some would say dialectical) character that displays man's [sic] full nature as a purposive, interdependent, and active being (pp. 173-4).

We would add that this talk is also at the heart of familiar places such as one's own home and the homes of friends and family – which now enjoy an unprecedented openness to the outer world through new and old media alike. In these homes, we believe, the public sphere, the private sphere, and – given the amount of advertising – the commercial sphere find their natural, if increasingly electronic, habitat.

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Table 1

Means and Rank Orders for Nine Talk Variables Within Loci and General Freedom To Talk

Locus		General		Home		Restaurants/ Malls		Work	
Mean Rank of Talk Variable		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1. Crime		2.56	1	2.26	1	1.66	2	2.18	1
2. Education		2.38	2	2.26	2	1.49	3	2.05	3
3. Entertainment/Sports		2.12	5	2.11	4	1.72	1	2.10	2
4. Economy		2.13	4	2.04	5	1.44	4	1.97	4
5. Personal and family matters		2.30	3	2.24	3	1.38	5	1.62	7
6. Local/state government		2.06	6	1.91	7	1.31	7	1.86	5
7. National government		2.05	7	1.94	6	1.32	6	1.85	6
8. Religion		1.85	8	1.77	8	1.09	8	1.24	9
9. Foreign happenings		1.72	9	1.55	9	1.06	9	1.41	8
Overall M/ rank by M	N answering all items	2.13/ 1	995	2.01/ 2	1,002	1.39/ 6	939	1.81/ 3	662

Locus		Worship		Clubs, Community and Civic Organizations		E-mail/ Internet		Freedom to Talk	
Mean Rank of Talk Variable		Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
1. Crime		1.74	3	2.02	2	.84	6	2.74	1
2. Education		1.74	2	2.10	1	1.07	3	2.68	3
3. Entertainment/Sports		1.10	9	1.61	6	1.21	1	2.69	2
4. Economy		1.23	6	1.86	4	.95	4	2.62	4
5. Personal and family matters		1.48	4	1.35	8	1.20	2	2.18	9
6. Local/state government		1.26	5	1.92	3	.81	7	2.58	5
7. National government		1.21	7	1.77	5	.93	5	2.55	6
8. Religion		2.35	1	1.29	9	.60	9	2.38	8
9. Foreign happenings		1.20	8	1.37	7	.72	8	2.42	9
Overall M/ rank by M	Gross N	1.48/ 5	639	1.71/ 4	351	.93/ 7	132	3.54/ NA	950

Note: Individual loci ordered from left by decreasing N. All scales range from 0 to 3.

Table 2

Factor Loadings for the Nine Talk Variables in the General Locus

Talk Variable	Political Talk	Personal Talk
National government	.86	-.12
Local/state government	.61	.07
Foreign happenings	.52	.11
The economy	.61	.03
Crime	.12	.46
Personal and family matters	-.06	.44
Education	.07	.58
Religion	-.04	.52
Entertainment/Sports	.05	.30
Percentage of variance	27	7
SS loading	2.43	.58
Correlation	.57	

NOTE: Maximum likelihood method of extraction was used with oblique rotation

Table 3

Factor Loadings for the Nine Talk Variables in the Home/Family Locus

Talk Variable	Political Talk	Personal Talk
National government	.92	-.11
Local/state government	.79	.03
Foreign happenings	.57	.13
The economy	.72	.07
Crime	.31	.45
Personal and family matters	-.08	.66
Education	.16	.62
Religion	-.01	.57
Entertainment/Sports	.03	.50
Percentage of variance	42	7
SS loading	3.75	.62
Correlation	.66	

NOTE: Maximum likelihood method of extraction was used with oblique rotation

Table 4

Factor Loadings for the Nine Talk Variables in the Workplace Locus

Talk Variable	Political Talk	Personal Talk
National government	.90	-.07
Local/state government	.86	-.09
Foreign happenings	.55	.15
The economy	.77	-.06
Crime	.52	.20
Personal and family matters	-.08	.70
Education	.43	.32
Religion	.12	.54
Entertainment/Sports	.24	.27
Percentage of variance	40	7
SS loading	3.63	.62
Correlation	.55	

NOTE: Maximum likelihood method of extraction was used with oblique rotation

Figure 1

Faceted Smallest Space Analysis Map for General Talk Variables

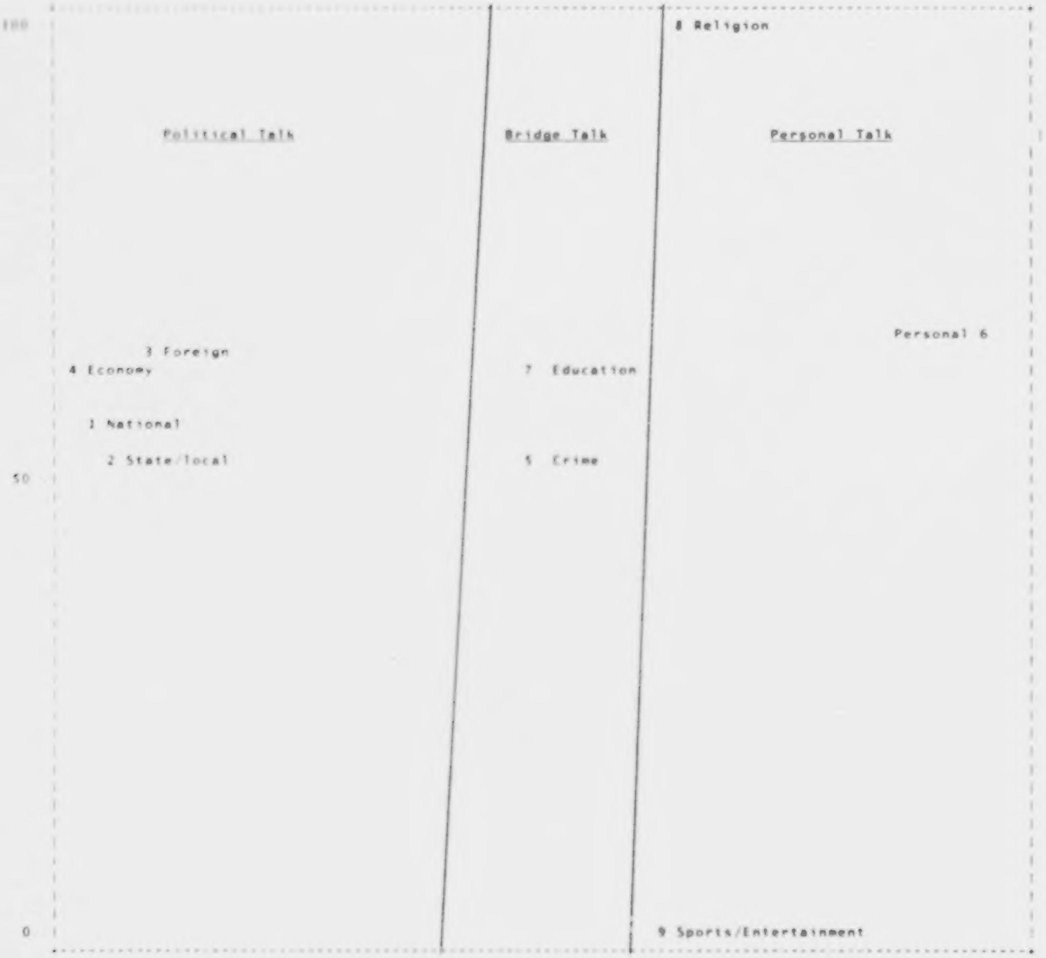

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Figure 2

Faceted Smallest Space Analysis Map for Home Variables

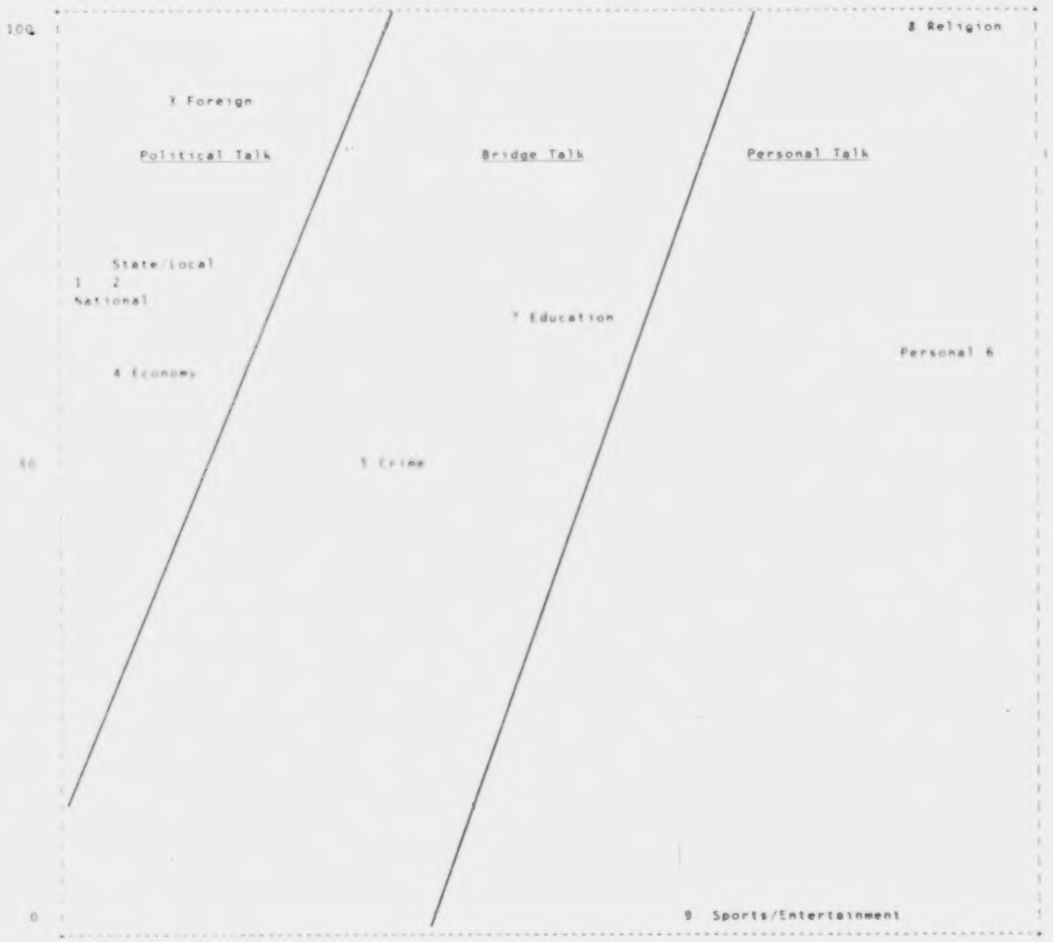

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Figure 3

Faceted Smallest Space Analysis Map for Restaurant/Mall Variables

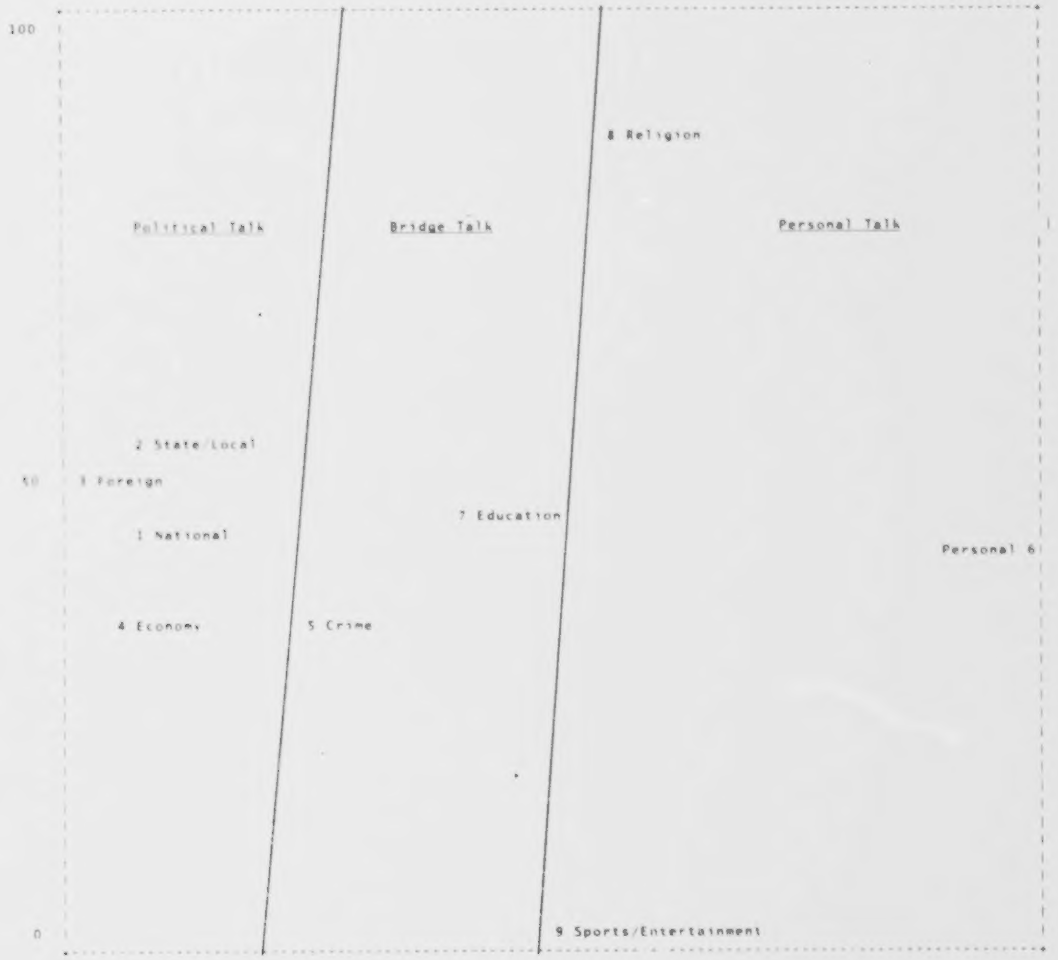

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Figure 4

Faceted Smallest Space Analysis Map for Work Variables

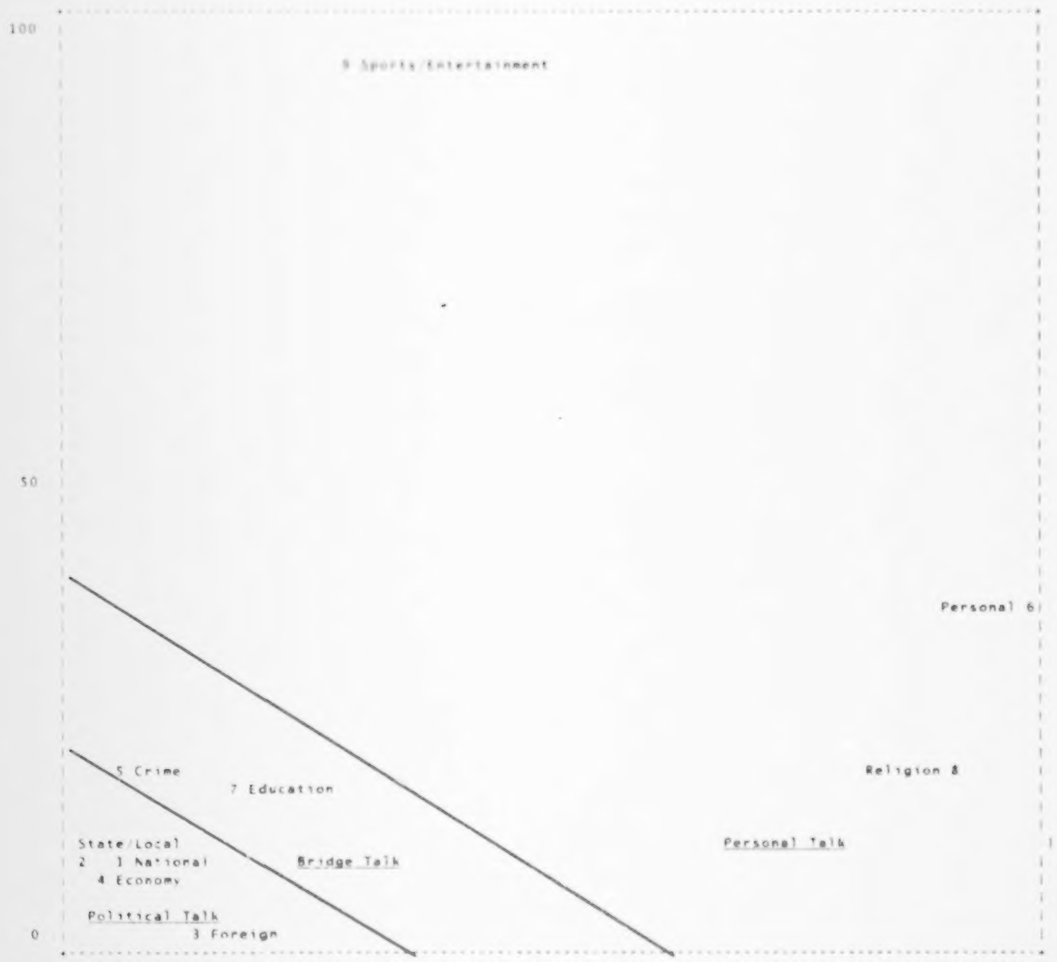

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Figure 5

Faceted Smallest Space Analysis Map for Worship Variables

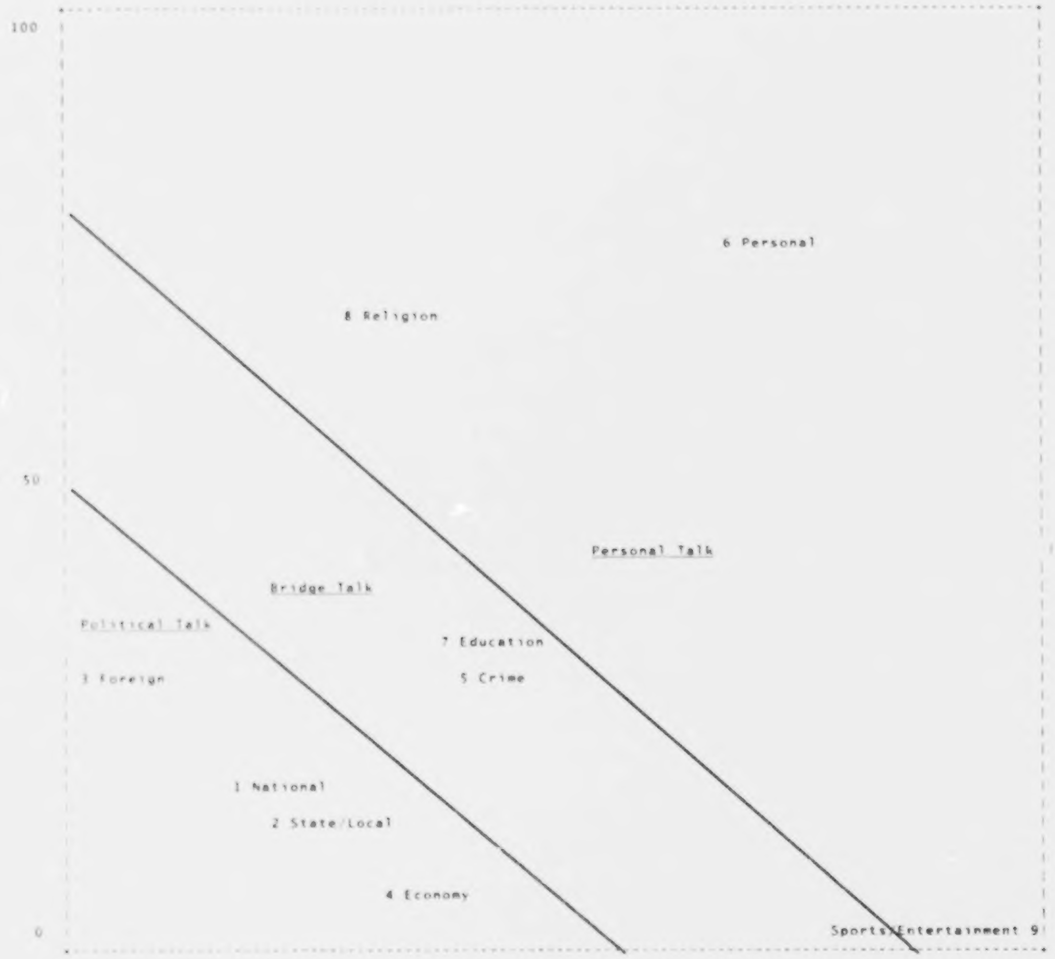

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Figure 6

Faceted Smallest Space Analysis Map for Organization Variables

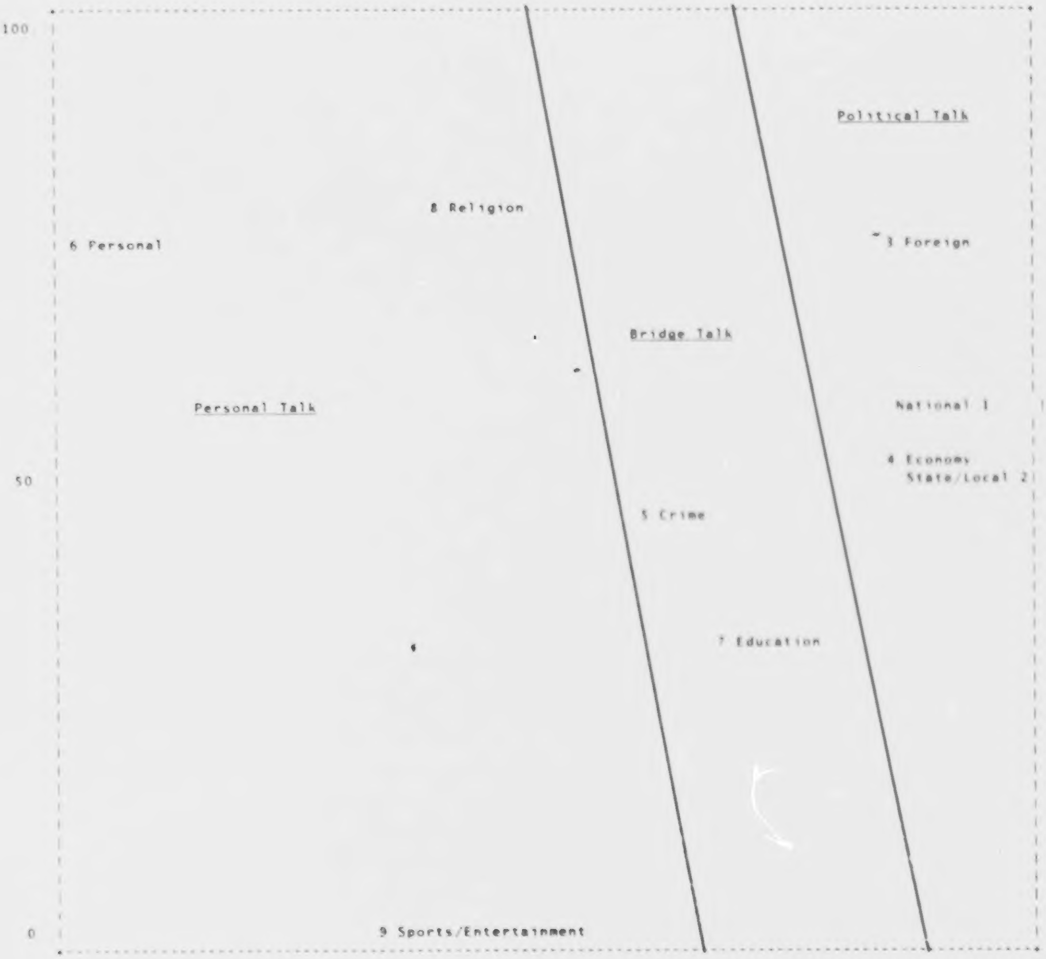

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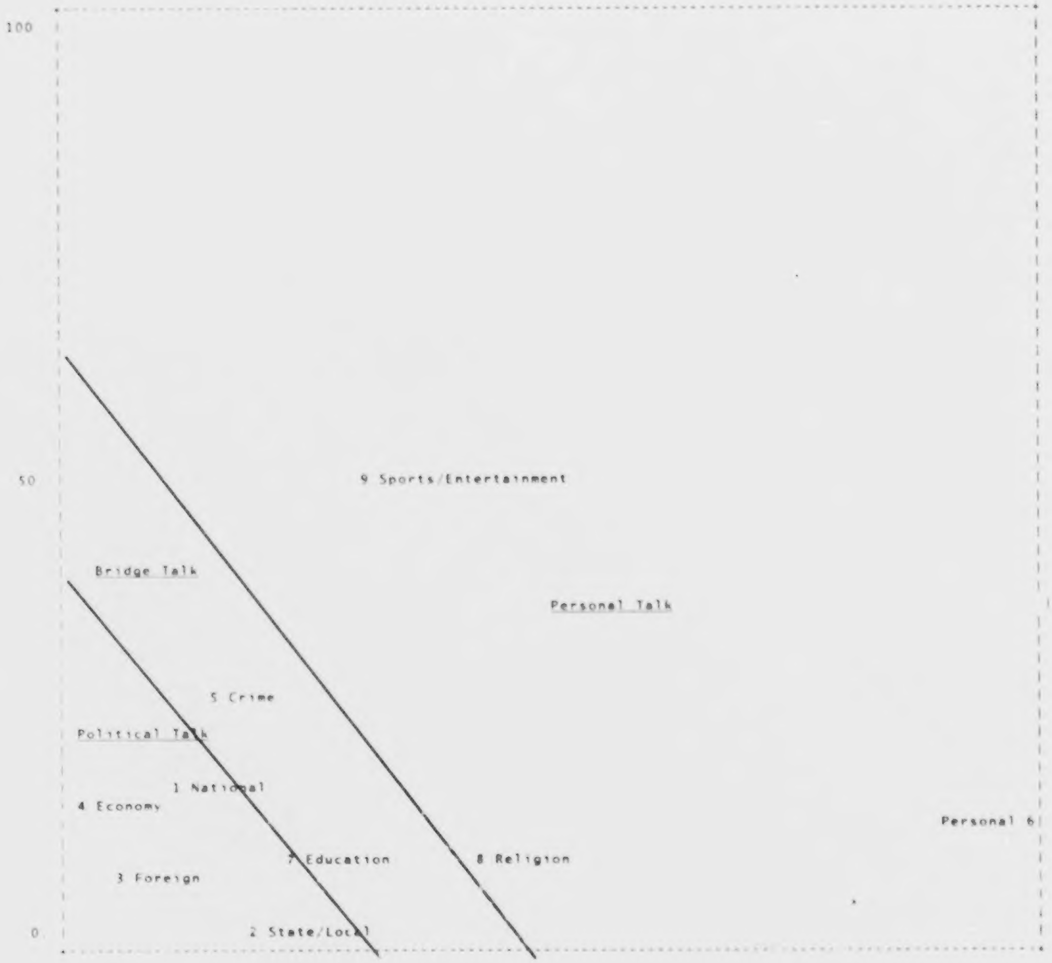
Figure 7

Faceted Smallest Space Analysis Map for E-mail Variables



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NOTES

[1] Reanalysis of data from Katz and Lazarsfeld (1956) suggests that there is greater overlap, i.e., less specialization among opinion leaders in different areas of influence than was originally suspected.

Invisible defamation plaintiffs: A methodological critique of gender and the legal research process

Paper PRESENTED IN ~~submitted to~~ the Communication Theory & Methodology Division
Association for Education in Journalism and Mass Communication (AEJMC)
1997 Conference in Chicago, Illinois

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Invisible defamation plaintiffs:
A methodological critique
# of gender and the legal research process

Abstract of paper submitted to the Communication Theory & Methodology Division
Association for Education in Journalism and Mass Communication (AEJMC)
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This paper offers a feminist critique of the legal research process, based on a historical study of gender and defamation, that body of law that concerns itself with reputational harm. The paper suggests that new methods of analysis, when used in conjunction with traditional methods, such as empiricism, description and explanation, can reveal powerful insights into both the system of law and the culture with which it is entwined.

Invisible defamation plaintiffs: A methodological critique of gender and the legal research process

The legal system in the United States is inaccessible to the common person or to those outside the field of law. It is elitist in the way in which it is organized, in the language it uses to communicate about itself and in the matters it chooses to grant importance. Kairys suggests that the law forms its own distinct and elaborate culture, "replete with its own language and conventions of argumentation, logic, and even manners."[1]

One way to challenge existing structures of power in our culture, which tend to marginalize or altogether exclude women and others, is to critique existing methods of analysis. This paper offers a critique of the legal research process, based on a study of gender and defamation, the vehicle through which the law awards and punishes actions related to reputation.[2] The paper suggests that new methods of analysis, when used in conjunction with traditional methods, such as empiricism, description and explanation, can reveal powerful insights into both the system of law and the culture with which it is entwined.

The study on which this methodological critique is based falls into a relatively contemporary area of legal research, loosely defined as the "sociology of litigation."[3] By and large, most legal research takes a *micro* approach, focusing on analysis of individual cases. Instead, this study took a *macro* approach, asking broad questions as it sought to identify patterns of gender imbalance in the area of defamation law.

Framed by feminist theory, which places the female experience at the center of the analysis, the research first defined two key historical periods in which emergent women's rights movements were pronounced, then quantified and analyzed primary sources in the form of individual legal actions brought by both female and male plaintiffs in two particular categories of defamation law.

But, in order to add context to the quantitative data and to discover the cultural assumptions underlying the disposition of the cases, the study also examined, through both primary and secondary sources, the structures of the mass media, the underlying assumptions of defamation law, and the social history of women, particularly as all three applied in the two decades framing the study, the late nineteenth century and the mid-twentieth century.

What became distressingly clear early in the secondary-research process was that nineteenth century defamation law was almost invisible in contemporary legal thought and that documentation of women's intersection with defamation law was even more strikingly absent. Blanchard has documented the former phenomenon, demonstrating that a vast body of libel and slander law was being formulated in the nineteenth century, even though modern scholars have all but ignored libel between the signing of the Bill of Rights in the late eighteenth century and the U.S. Supreme Court's first decisions in the seditious libel cases of the early twentieth century.[4]

The study on which this methodological critique is based attempted to document the latter problem, analyzing not only secondary sources but also primary sources, such as state defamation statutes and judicial holdings in the sample cases. In the process, the research uncovered how the traditional way of recording legal decisions effectively camouflages the social patterns to which those decisions contribute, often to the detriment of culturally marginalized groups such as women.

Methods framework

In total, the study examined four sets of empirical data: approximately 300 libel and slander cases in two time periods, 1897 to 1906 and 1967 to 1976, and in two categories of defamation, "imputation of unchastity and immorality" and "imputations injurious to profession or business."

These decades were selected because they represented two periods in U.S. history in which women were particularly strong and active in their struggle against sexism. The turn of the century embraced the height of the first wave of the women's rights movement, and the later decade encompassed the second wave of feminist struggle against sexism in society. During both periods, women were coming into their own in a number of social arenas -- political, educational and professional. And during both periods, women actively worked to redefine gender attributes and their relative importance to the social self and to their roles in the culture at large.

The research explored the question of whether the vital progress women made during the late nineteenth century and the mid-twentieth century extended into the legal sphere, via the law of defamation. It sought to examine to what degree women's social identity -- bound to the domestic roles of wife, mother and housekeeper; tied to the doctrine of the virtuous woman; and excluded from the public world of government and business -- was replicated by and reinforced in the judicial system. The pictures would have seemed to have been most clear during the two waves of women's activism.

The two categories of defamation were selected from four categories, which the common-law courts have considered defamatory per se (on their face): accusing someone of a crime; accusing someone of having a loathsome disease; making charges that would injure someone in his or her business, profession, office, or calling; and accusing someone of immorality and/or unchastity. (Certainly, other categories of defamation exist, but they were not considered here.)

The study examined the immorality and business categories because they seemed to represent the concept of separate gender spheres, an idea central to the research. The ideology, which came into clear focus in the nineteenth century and has been maintained, to one degree or another, to the present time, pushed women into the private sphere of the home and men into the public sphere of business and politics. The idea of separate gender spheres also is tied closely to the doctrine of the virtuous woman, a central cultural assumption about the status of women, reinforced by the mass media and replicated in a slander law prohibiting speech accusing a woman of unchaste conduct.

Specifically, the study examined both the business and immorality categories because they seemed to represent the dualities, the contrasts, the research sought to explore and because *they seemed to be the most likely classifications to probe for signs of a female presence*. The first libel per se category, "imputation of immorality and unchastity," was chosen based on the assumption that, at least at the turn of the century, women's presence would be most visible as they sought redress from reputational harm because women's reputations were defined based on their sexual virtue, to the exclusion of their whole selves.

The second category, "imputations injurious to business or profession," was selected based on the assumption that if women were defamed based on their public-sphere roles, they most likely would bring suit here rather than under any other public-sphere defamation category, which might require proof of special damage. Given the historical periods that frame the case selections -- the late nineteenth and the mid-twentieth century -- the choice of the business category also recognized that women were represented in the labor force (business and professions) during both periods and that, therefore, at least the possibility of media representation, and, therefore, the possibility of defamation, were present.

It needs to be noted, however, that these categories -- developed within the public law and replicated within the private case-reporting system -- are essentially analytical constructs and were used in the study simply to help guide the data-collection process.

The hypothesis, then, was that when defamation actions brought by women plaintiffs involved their private domestic roles, they were *more likely to be successful* in winning a judgment than when the action involved their roles in the public world of business and the professions. The study examined the notion that when women got into the courtroom and squared off against those who had assaulted their reputations, their likelihood of being awarded a remedy or relief was linked almost exclusively to their sexual identity, despite one hundred years of agitation, adjudication and social change intended to make it otherwise.

Critique of legal research process

Only a handful of studies of U.S. defamation law using social-science research techniques have been published, all within the last twenty years. Among the most notable are the Iowa Libel Research Project, which published the results of its years-long study in 1987,[5] and Stanford law professor Marc Franklin's two major empirical studies of defamation in 1980 and in 1981.[6] All three of these benchmark projects have contributed immeasurably to the general body of knowledge about the legal process in the United States as well as the specific area of law called libel.

By empirically examining hundreds of contemporary defamation cases, each of the three studies discovered heretofore unrecognized trends in libel litigation. Franklin's major finding in the first study, for example, indicated that plaintiffs ultimately prevail in only 5 percent of all libel cases brought against the mass media.[7] He also found that most libel plaintiffs are men of relatively elite standing in their communities and 70 percent of the plaintiffs are men engaged in corporate or public life. A major finding of the Iowa study was that many libel plaintiffs appear to be more interested in some form of vindication or reputational repair than in damage awards.[8]

Important though these studies are, however, they all suffer from methodological problems, many self-acknowledged, which seem pervasive in empirical legal research. Perhaps the most important of these is how to identify the universe of cases from which to draw a sample for study. No list of all court cases, at all levels of trial and appeal, is readily available. Although several other methodological barriers can be identified, the daunting potential for sample bias is the primary focus of this critique.

In order to identify cases in a particular area of law, researchers often use legal digests, which categorize cases by type and by year of decision. (Other means of identifying cases exist -- see discussion below -- but the digests are, by far, the most utilitarian and the most complete, especially when searching for a historical sample.) In defamation, cases are listed under the classification, "Libel and Slander" in thick volumes called "decennial digests," published every ten years by the West Publishing Company, a private enterprise headquartered in Minneapolis, Minnesota. The libel classification is further subdivided into categories, such as "imputation of unchastity and immorality," and then subdivided again into subheadings, such as "abortion," "adultery," and "prostitution." The cases are arranged, in one-paragraph abstracts and by date of the court's decision, under these subheadings.

Once the researcher identifies the sample cases in the legal digests, she then uses the case citations gleaned there to locate each individual case opinion in the appropriate legal publications. The West Publishing Company sorts and publishes case opinions in books called case reporters: U.S. Supreme Court cases are contained in the *Supreme Court Reporter;* federal district court cases are contained in the *Federal Supplement,* and federal appellate cases are contained in the *Federal Reporter*. State appellate cases are contained in seven regional reporters (Pacific, Atlantic, North Eastern, North Western, South Eastern, Southern, and South Western) plus a separate New York supplement.

Communications law researchers also may cull cases from *Media Law Reporter*, which, in 1977, began publishing high-level court decisions having to do with the mass media. In its first bound volume in 1978, *Media Law Reporter* stated that its purpose was to provide "full-text, indexed coverage of all U.S. Supreme Court decisions and *significant* [emphasis mine] federal and state court and administrative agency decisions in the field of media law."[9] It went on to state:

> Obviously, the page limitations of a single volume dictate that not all of the cases that have been of significance in the development of the law can be included. The selection of the cases in this volume was made by the editorial staff of the MLR with the assistance and recommendation of MLR's distinguished Advisory Board."[10]

(Of the 22 people listed at the front of the volume as members of the law reporter's advisory board, only four were women.)

It is within this seemingly broad but actually quite narrow case-reporting system that the apparent invisibility of women in defamation law can be discerned. The system is inadequate for at least three reasons:

- First, the kinds of opinions that get published are limited, almost exclusively, to appellate, rather than trial-level, cases.
- Second, the way in which the cases are reported is incomplete and exclusive.
- Third, the way in which the cases are categorized is arbitrary and subjective.

Limited publication of cases

Even the most complete of the case-citation services, the West reporting system, is biased in favor of appellate-level cases. One reason social-science researchers find the system so archaic and narrowly defined is that it was established for lawyers, who often are looking for quite different things than other researchers. A note in the front of the Century Edition of the American Digest, for example, assumes that only lawyers will use the resource: "By means of the American Digest System a lawyer can cover the entire range of judicial authorities on any question of law, from the earliest case to the latest."[11] And, even though the Century Edition proclaims itself to be "a complete digest of *all reported American cases* [emphasis mine] from the earliest times [1658] to 1896,"[12] it must be remembered that the publication was then and continues to be today a private enterprise and marketed as a product, with claims, at least in its earliest editions, that seem to have been exaggerated.

A lawyer looking for precedents in case citations could find the West reporting system quite helpful and useful, but a researcher looking for why plaintiffs sue or who sues whom would find the system lacking and, more than occasionally, obstructionist. Defamation law is state law; no federal statute governing reputational harm exists. Yet, except for a small percentage of decisions reported by federal district courts, where plaintiffs sought relief from defamatory statements published in a medium with a nationwide audience, virtually no (state) trial-level cases are reported. In addition, cases that reached out-of-court settlements are unavailable. The system is set up to look strictly at big wins and losses, contributing to a legal history that describes appellate case law in "aristocratic detail," and neglects an assessment of the actual impact of the law on the average citizen.[13]

While the West reporting system claims to report all federal and state appellate court decisions that are received from the courts for publication, not all of the decisions are reported by the courts. Even more distressing is the fact that because the number of cases and, therefore, the number of reported decisions have proliferated since the mid-nineteenth century, and because the costs of writing and reporting opinions have increased as well, courts have withheld large numbers of opinions from publication. According to one study, "the period from 1790 to 1840 produced 50,000 reported decisions; the next 50 years, 450,000; the next 50 years, ending in 1940, 1,250,000; and from 1940 to 1960, approximately 600-700,000 opinions were published."[14]

As a result, in the 1960s and 1970s, individual U.S. Courts of Appeal began to develop their own programs to limit publication of cases and to establish criteria for determining what cases should be published. In 1973, the Federal Judicial Center issued a "model rule" for appellate courts, providing that opinions should be published only if they (a) established a new rule of law or altered or modified an existing rule of law; (b) involved "a legal issue of continuing public interest;" (c) "criticize[d] existing law;" or (d) resolved "an apparent conflict of authority."[15] It has been estimated that less than 40 percent of all cases heard in the federal appellate courts are reported and only 10 percent to 15 percent of cases heard in federal district (trial-level) courts are reported.[16]

By 1977, according to one study, only four of the eleven federal appellate circuits were publishing opinions in more than half of their cases, ranging from a high of 69.5 percent of opinions published by the Court of Appeals for the Eighth Circuit to a low of 21.2 percent of opinions published by the Court of Appeals for the Fourth Circuit.[17] Another study indicated that in the 1978-79 reporting year, federal appellate courts, on average, published only 38.3 percent of their opinions, ranging from a high of 68.2 percent in the Eighth Circuit Court of Appeals to a low of 18.1 percent in the Third Circuit Court of Appeals.[18]

Some observers suggest that such high rates of nonpublication may lead to unfair allocation of published opinions between certain social groups or types or classes of litigants.[19] Others suggest that with the burgeoning of computer databases, such as Lexis and Westlaw (owned by the West Publishing Company), more court decisions can and will be published, although their precedential value is still a matter of some debate.[20] Until the technological debate over on-line case-reporting systems is resolved, however, it appears that sampling distortion will continue to be probable.

In his first empirical study of libel law, Franklin drew his sample of cases from those reported in the West regional reporters; his second study used cases from West and from Media Law Reporter, both of which report almost exclusively from the appellate level. If it is true, as Franklin revealed in his later study, that only about 25 percent of all cases ever go on to appeal,[21] and given the low percentages of appellate cases that are reported, Franklin's sample probably was not representative of the universe of libel actions brought. Franklin rightly reasoned that media defendants would tend to appeal cases they lost at the trial level. In fact, as early as the mid-nineteenth century, large newspapers began to consider the cost of defending libel suits as just another part of the cost of printing the newspaper, like buying ink or newsprint.[22] But in viewing defamation law from the viewpoint of media defendants rather than plaintiffs who claimed reputational harm, Franklin's study excluded a whole class of cases: those not appealed by plaintiffs. Franklin recognized the methodological problem but rejected its importance in biasing his results.

In contrast, the Iowa study considered the court-reporting system to be a major methodological problem and, while acknowledging the necessity of using the West reporting system to identify cases, attempted to compensate for the built-in distortion by additionally surveying libel plaintiffs, libel defendants and media organizations; by interviewing media attorneys; and by searching the files of a major libel insurer for cases that were settled.

Not only do the court-reporting systems exclude trial-level cases and instead publish only a shrinking percentage of appellate-level decisions, but also there is no real way to know how many cases get settled out of court. In Franklin's first study, he asserted that very few media defendants settled their cases out of court. He had to qualify his claim in the second study, however, because he found that one libel insurer reported settling about 25 percent of its cases. In the Iowa study, the researchers found evidence that "between 10 percent and 15 percent of libel cases involve money settlements."[23]

Certainly such methods as those used in the Iowa project help capture a more representative sample. Yet, the study on which this methodological critique is based was examining something even more elusive than the number of libel cases appealed by plaintiffs; it was looking for historical patterns of gender disadvantage, and in the judicial reporting system, women (as well as other excluded individuals and groups) remain almost invisible.

No adequate way exists to identify trial-level cases nationwide, yet such cases could be significant to research on marginalized groups, such as women. In his first study, Franklin argued that inclusion of trial-level cases would invalidate his results:

> Trial-level cases are of limited use for, among others, the following reasons: (1) Trial judges are likely to write reportable opinions only in selected types of cases. (2) Defendants are unlikely to accept defeat at the trial level, while plaintiffs apparently do not persevere to the same extent. (3) There is a disproportionate number of cases from New York among the trial-level cases. Thus, figures using trial cases would necessarily be badly skewed.[24]

On the other hand, studies such as the one on which this methodological critique is based could have found such lower-court decisions useful because they could have indicated how many women plaintiffs stop their pursuit for recovery after the original trial and perhaps could have pointed to some reasons why. Unfortunately, such a quest was impossible because, as noted previously, trial-level cases are not reported or published by date and/or category of law, both of which are necessary in order to select a valid nationwide historical sample. Exploring trial-level cases state by state is certainly an option for the diligent researcher. Law libraries, however, only house reports of trial-level cases from the state in which the library itself resides. Thus, personal visits to a law library in each individual state would be required.

In the Iowa study, cases were selected through the West Decennial Service, Lexis electronic database, the Libel Defense Resource Center's 50-State Survey, Media Law Reporter and cases cited in law review articles. Of these, only the West service was available for case citation in late nineteenth century, although other, certainly less-expeditious, means of collecting a sample did exist, such as use of the legal encyclopedias.

Examining Corpus Juris Secondum, one such legal encyclopedia, can be helpful in supplying definitions and discussing procedure, as it does for libel.[25] But C.J.S. can be tedious when doing historical legal research because its hundreds of case citations do not include dates of decisions. Thus, a researcher looking for cases between 1897 and 1906, for example, would find C.J.S. an untenable tool.

American Jurisprudence 2d also is a helpful encyclopedic guide for the historical researcher, but, again, case citations do not include dates of decisions. In some editions of Am. Jur. 2d, the laws relating to defamation are analyzed and given historical perspective,[26] and pocket parts (updated addenda attached to the back of the editions) often list current and valuable law review articles. The Am. Jur. 2d 1991 pocket part, for example, noted one of the few scholarly articles that has ever examined a key element of defamation law, the concept of reputational harm.[27] Nevertheless, the process of finding sample cases by year of decision in the legal encyclopedias proves an impossible undertaking.

Similarly, though the treatises of the nineteenth century and the textbooks and scholarly work of the twentieth century offer a wealth of information about the laws of slander and libel, case citations are not listed by date of decision in the earlier works nor do they refer to any but those exclusive cases decided at a high level of judicial review in the later works. Townshend, for example, wrote an 848-page treatise in 1890 that is a valuable source for works of reference, but it cites cases without dates of decisions.[28] In 1895, Cooley wrote a treatise that included a chapter on slander and libel and many case citations, all, however, without dates of decisions.[29]

Any critique of defamation research must at least make note of the fact that traditional contemporary legal scholarship tends to focus on U.S. constitutional speech-liability protection and freedom of expression *for the mass media* and sadly neglects the concept of reputational harm and the impact of defamation *on the average person.* While contemporary works do include dates of decisions in case citations as a matter of style, as stated previously, published citations usually are to cases with legal precedential value rather than historical, social or cultural value.

Incomplete case citations

The information contained in the case citation itself -- important when used in a legal system that values precedent -- lacks essential information if the law is to serve a social, cultural or policy function. For example, in cases involving individuals, only the last names of the primary plaintiff and defendant are cited. This simple procedure, one that some may view as merely streamlining the citation, excludes second and third parties to the action and privileges the male surname over the female given name. In the citation *Baird v. Dun & Bradstreet, 285 A.2d 166 (1971),* for example, it is impossible to know that two other individuals and one business also were plaintiffs in the action against the credit-reporting agency.

Similarly, in the citation *Gates v. New York Recorder Co., 49 N.E. 769 (1898),* it is impossible to know the gender of the plaintiff whose last name is Gates. In this citation, the name of the plaintiff was Ida M. Gates, obviously a female name. But her surname, Gates, was her husband's, and the case citation does not include Ida, her given name. So, in trying to locate women in the law -- or men, for that matter -- one must look beyond the important case citation and read the actual case itself. Sometimes, even reading the actual case does not result in a determination of the plaintiff's gender. In Franklin's 1980 study, he noted that "[the gender of the] plaintiffs could not be identified" in five of the cases he analyzed.[30]

Another example of dominant culture privilege is the exclusion of first (given) names in other, non-case legal citations. For example, until recently only the last names of authors of journal articles were included in legal citations, and even still today, law students who publish "Notes" in their law journals are not cited by either their given name or their surname; only the name of the article is included in the legal citation. The assumption in both examples seems clear: Neither the gender nor the status of the author is relevant because the law purports to be neutral and objective and because the law is written for, by, and about men in the legal profession.

This naming practice is replicated in other arenas, such as the mass media, as well. In a University of Washington study of gender and nineteenth century newspapers, the authors found that while the newspapers referred to men by both their given names and their surnames (e.g. Richard Smith), women appeared in relation to or as appendages to men. Newspapers referred to women with the name of their husband (e.g., Mrs. Richard Smith or Mrs. Cohen) exclusively, rather than with their given name, or by some other reference (e.g., Smith's wife, or "the groom's mother" or "his aged mother").[31]

In addition to excluding gender and status of the author from legal citations, the case-reporting system, as well as the published opinion itself, make unavailable information about race or ethnicity, age, class, sexual orientation, or religion.

On-line databases could help solve some of the methodological problems described above, particularly the distressing problem of sample selection, by including *all* decisions at *all* levels of court and by using demographic profile information in an abstract of each case. Furthermore, computer searches could help discover the *absence* of decisions in a particular area of law, especially useful in research involving culturally and legally marginalized groups such as women.

But, in order for the promise of computer-research technologies to be realized, at least two problems need to be addressed: First, the systems need to become more accessible than they are currently. Searches now require selecting libraries and files; typing in a search request using only critical terms and synonyms, then linking those terms with connectors and/or segments; and deciding the form of the search results (partial or full text or bibliographic citation only). All need to be streamlined. Second, computer case reporting will be little different from print case reporting if people in decision-making positions, including abstractors, editors and publishers, carry the same narrow cultural baggage as they do currently. In other words, case classifications need to more accurately reflect the contemporary culture.

Arbitrary categories for cases

The West reporting system categorizes the cases it chooses to digest -- those cases from which any longitudinal sample must be drawn -- according to a scheme developed in the late nineteenth century by one man, "Mr. John Mallory, whose long experience in digest-making. . . and extending over some twenty-five years of active work along this special line, entitles him to rank at the head of living digesters."[32] The case categories, while they bear some resemblance to the categories found within the law itself, also, as might be expected, contain quite arbitrary and subjective distinctions based on the cultural assumptions and biases of editor Mallory and the other editors employed by the West company. For example, in the first digest published by the West company (the Century Edition of the American Digest, which lists cases from 1658 to 1896), the defamation categories of "immorality" and "crime" were separate and discrete. In the second digest (Decennial Digest, which lists cases from 1897 to 1906), published ten years later, the categories were collapsed into one.

The older category was called "Imputation of Unchastity or Immorality," while the new category is called "Words Imputing Crime and Immorality." The latter designation persists today. As a result of collapsing the categories, several subheadings were added, including "nature of crime and punishment;" "assault, burglary, robbery, and homicide;" "arson and burning of buildings;" "conspiracy and blackmail;" and "violation of food laws."

Of course, there is no way to know why such categorical changes come about since the West Publishing Company is a private enterprise and owes no explanation. But, in a telephone interview with the author of this paper, an editor at West's headquarters in Minneapolis said he suspected that, in 1897, when the company adopted the key numbering system (a unique West feature used as an indexing device), editors reviewed the classifications and "where categories were sparsely populated, we collapsed them."[33]

He suggested that the association of crime and immorality is made in other kinds of law, so it would make sense to do it in libel, as well. He added that one other reason the two categories might have been linked was that, culturally, the same behavior has been dealt with differently by gender: men fornicating equals a crime (presumably, he meant rape); women fornicating equals immorality.

From the researcher's point of view, the collapse of the categories presented serious problems in identifying a valid sample. For example, before the two categories were combined, each housed a separate subheading titled "in general," where editors placed cases that didn't easily fit into the more specific subheadings. The research dilemma became how to decide which of the cases listed under the new, conflated subheading "in general" were related to immorality and which were related to crime. Immorality was the category of libel per se being examined, not crime.

In this instance, the dilemma was resolved by using in the sample only those cases listed in the "in general" subheading that mentioned words such as immorality, moral turpitude, etc. Cases listed under the crime subheadings were deleted altogether, and cases listed under the remaining immorality subheadings, including "abortion;" "bigamy;" "disorderly house, gambling, and intoxicating liquors;" "want of chastity or sexual crimes in general;" "adultery;" "fornication, incest, and rape;" and "prostitution," became part of the sample, just as they had previously.

The West editors also delete entire categories when they are sparsely populated. West's editor said lines (meaning subheadings) were deleted when there were no cases to populate them. Thus, after 1896, the subheadings "bastardy and illegitimacy" and "bestiality or sodomy" were deleted from the immorality category; "fornication" and "incest" were collapsed into a subheading that also included "rape;" and "keeping house of ill fame" was collapsed with the crime category of "keeping a disorderly or gambling house" to become "disorderly house, gambling, and intoxicating liquors." Such changes made it difficult to do category-by-category comparisons over time.

In addition, after 1896 in the business libel category, "architects and" was deleted from the subheading "architects and contractors;" "real estate and advertising agents" became "brokers and advertising agents;" and the subheading "hotel and boarding house keepers" was deleted. It is interesting to note that even in the later decennial digests (the eighth, which includes cases reported between 1966 and 1975, and the ninth, which includes cases reported between 1976 and 1985), the categorical terminology maintained its gender specificity. "Clergymen" remains clergymen rather than clergy, and "tradesmen" remains tradesmen rather than skilled workers.

The subjectivity of classification also can be demonstrated by noting duplication of cases in two categories. In the cases that became part of the study sample from the later decade (1967-1976) especially, the West system duplicated several cases in the business category in the immorality category. These cases were coded and recategorized in the business category.

One reason the cases were duplicated in seemingly opposite categories was the abstractor's use of key words from the judicial holdings in the case. If judges cited the libel per se standard, for example, which lists four categories of libel as defamatory on their face, the words "imputation of unchastity or immorality" as well as "imputation of a crime," "imputation of a contagious disease," and "imputations injurious to business or profession" could have appeared in the opinion. The West abstractors then used those key words in categorizing the case, even though the words often were irrelevant to the case. Thus, several of the cases listed under the immorality categories, especially in the later period of the study, had nothing at all to do with libel or slander in regards immorality and had to be recategorized for sample consistency.

Policy implications

This methodological critique, based on a study of gender inequality and defamation law, suggests that new research techniques are required to answer questions similar to those asked in this project, as are new ways of gathering information within the judicial process itself. One further example might help illustrate how fugitive the research material can be. In the West digest, occupational subheadings under the category of "imputations injurious to business or profession" are listed, such as "attorneys at law," "physicians/dentists," "merchants," and "contractors." Occupations seen as traditionally feminine -- such as nurses, child-care specialists, secretaries, sales clerks, seamstresses -- are not included in the subheadings, even in the mid-twentieth century digests. In fact, the digest classifications in both the business and the immorality categories have changed remarkably little over the span of a century.

There are many plausible reasons for this lack of a feminine presence. For one, lack of representation in the media means less opportunity for defamation. The mass media don't publish or broadcast very much news or entertainment about women; the vast majority of names in the news are "known" public officials and public figures, and most of them are men. Second, West publishing company editors make decisions about which occupational classifications to include based on their own cultural assumptions about occupational roles, which may not accurately reflect true social roles. Third, people working in these "feminine" job classifications generally don't have resources or access to the judicial system that would help them pursue recovery from reputational harm.

One way to try to capture this fugitive material and to make people more visible in the court-reporting system as well as in social-science research is to include with their causes of action information about who they are. Such information could include the full names (first, last, and middle initial) of all plaintiffs and defendants in the case; the plaintiffs' Social Security numbers; their dates of birth; their gender; their education level;

their race and/or ethnic origin; their occupation; and their income level. The gathering of such demographic information should be a routine part of the process of filing court cases, so that society can begin to track consistently who brings what kinds of lawsuits against whom. Its inclusion in the behemoth case-reporting system is essential for the future formulation of sound public policy as it relates to gender, race, class, age and a multitude of other issues.

Notes

[1] David Kairys, ed., The Politics of Law: A Progressive Critique, rev. ed., (New York: Pantheon Books, 1990), 4.

[2] (Author omitted), "Patterns of Harm: An Analysis of Gender and Defamation," Communication Law and Policy 2:1 (1997): 105-141.

[3] Jeremy Cohen and Timothy Gleason, Social Research in Communication and Law (Newbury Park, Calif.: Sage Publications, Inc., 1990), 85.

[4] Margaret Blanchard, "Filling in the Void: Speech and Press in State Courts Prior to Gitlow," in The First Amendment Reconsidered: New Perspectives on the Meaning of Freedom of Speech and Press, eds. Bill Chamberlin and Charlene Brown (New York: Longman, 1982), 14-59.

[5] Randall P.Bezanson, Gilbert Cranberg and John Soloski, Libel Law and the Press (New York: Free Press, 1987).

[6] Marc A. Franklin, "Winners and Losers and Why: A Study of Defamation Litigation," American Bar Foundation Research Journal, (1980): 455-500. Also, Marc A. Franklin, "Suing the Media for Libel: A Litigation Study," American Bar Foundation Research Journal, (1981): 797-831.

[7] Franklin, "Winners and Losers," 479.

[8] Bezanson, et al., Libel Law, 5.

[9] Media Law Reporter 1 (Washington, DC: Bureau of National Affairs, 1978).

[10] Ibid.

[11] Century Edition of the American Digest, vol. 32. (St. Paul, Minn.: West Publishing Co., 1902).

[12] Ibid.

[13] Robert W. Gordon, "J. Willard Hurst and the Common Law Tradition in American Historiography," Law and Society Review 10 (1975): 51-79.

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[14] Leah F. Chanin, "A Survey of the Writing and Publication of Opinions in Federal and State Appellate Courts," Law Library Journal 67 (1974): 362-379.

[15] W. L. Reynolds and W. M. Richman, "The Non-precedential Precedent--Limited Publication and No-citation Rules in the United States Courts of Appeals," Columbia Law Review 78 (1978): 1171.

[16] Morris L. Cohen and Robert C. Berring, How to Find the Law, 8th ed. (St. Paul, Minn.: West Publishing Co., 1983), 51-53.

[17] Daniel E. Hoffman, "Nonpublication of Federal Appellate Court Opinions," Justice System Journal 6 (1981): 423.

[18] W.L. Reynolds and W.M. Richman, "An Evaluation of Limited Publication in the United States Court of Appeals: The Price of Reform," University of Chicago Law Review 48 (1981): 587.

[19] Hoffman, "Nonpublication," 410.

[20] Susan W. Brenner, "Of Publication and Precedent: An Inquiry into the Ethnomethodology of Case Reporting in the American Legal System," DePaul Law Review 39 (1990): 462-542.

[21] Franklin, "Winners and Losers:" 463.

[22] Norman L. Rosenberg, Protecting the Best Men: An Interpretive History of the Law of Libel (Chapel Hill, N.C.: The University of North Carolina Press, 1986), 197.

[23] Bezanson, et al., Libel Law, 238.

[24] Franklin, "Suing the Media:" 799.

[25] 53 C.J.S., Libel and Slander, §2(b) (1987).

[26] 50 Am. Jur. 2d, Libel and Slander, §§1, 2 and 3 (1970) is representative.

[27] Robert C. Post, "The Social Foundations of Defamation Law: Reputation and the Constitution," California Law Review 74.3 (1986): 691-741.

[28] John Townshend, A Treatise on the Wrongs Called Slander and Libel and on the Remedy by Civil Action for Those Wrongs, Together With a Chapter on Malicious Prosecution, fourth edition (1890).

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[29] Thomas Cooley, The Elements of Torts (Chicago: Callaghan & Company, 1895).

[30] Franklin, "Winners and Losers," 478.

[31] Gerald J. Baldasty et al., "Gender and the Construction of News in the Late Nineteenth Century," unpublished manuscript, on file with author, (1992), 12-13.

[32] Century Edition of the American Digest, vol. 1 (St. Paul, Minn.: West Publishing Co., 1897): iv.

[33] Charlie Swope, assistant managing editor in charge of the key numbering system at West Publishing Company in Minneapolis, Minn., telephone interview by author, October 7, 1992.

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Public Opinion and Ideological Center in Media Coverage: the Center-seeking Mechanism in electoral Politics

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Abstract

This paper, from a micro politico-economic perspective examines the relationship between (1) public opinion, (2) media coverage of candidates and (3) election outcomes in political campaigns. An analysis of five American electoral campaigns in 1994 and the data of the National Election Studies reveals that (1) those who were portrayed by the media as one occupying the central position in the ideological spectrum are most likely the elected, and that there is a correspondence between the ideological center portrayed by media and the majority public opinion (measured in the NES). The results helps rebuild the simple effect model of media and public opinion on voting results into a two-step model. We suggest that the formation of the majority opinion is the consequence of the voters' exposure of the framed ideological center in the media, and thus the mediated ideological center indirectly influences the voters choices and hence the election outcomes.

While political scientists are interested in how opinion polls and their subsequent manipulations influence the election outcomes, media scholars are preoccupied with studying media effect on election outcomes. In either cases, neither the effect of public opinion and of media coverage is comparatively assessed and concluded; nor an insightful prediction of election outcome through the study of public opinion, media or the interaction of the two is gauged. This paper, from a micro politico-economic perspective, illustrates the relationship among the triplet in the field of political communication.

FROM NEWS SELECTION TO MANUFACTURING OF CONSENT

One of the major interests in political communication centers on the manifest criterion of selection, the prototyping process between attributes of events and newsgathering routines of journalists on the coverage of American elections (Brosius and Eps 1995). Journalists' reporting of presidential debates often focuses on a single defining moment that is taken to epitomize the debate in its entirety and that journalists select quotations and sound bites by reference to three basic considerations: (a) narrative relevance, (b) conspicuousness and (c) extractability (Clayman 1995). The thesis of various studies (e.g. Orman 1995) tend to suggest a favorable portrayal of presidential candidates in terms of decisive, competitive, strong, tough, aggressive valence are more likely to win.

However, empirical evidence often concludes that audience always converges in public opinion on various issues and such a tightly focused public agenda is resistant to change (Shaw and Martin 1992).1 Mere examination of news selection and presentation of values-laden news content do not imply political influence.

The concept of public opinion bridges the gap. Media are said not to change the attitudes of individual voters, but manufacture consent that the public conform to (Salmon and Glasser 1995), or in Marxist term, media articulate the hegemonic view in particular social and historical blocks for social control (Hallin 1997). Empirical study by McCombs, Danielian and Wanta (1995) suggests that in the course of setting the public agenda, the news media create social consensus which rests both upon public opinion and the latent criteria of news selection. These scholars tend to echo the main theme that media may not be persuasive in swaying the political stance of people but they possess the capability of creating the "opinion" that influences the political process.

FUNCTIONS OF PUBLIC OPINION

There are numerous ways to conceptualize and define public opinion as social theorists and researchers were also interested in different aspects of it. Susan Herbst (1995, 44) sorted the various meanings of public opinion into four definitional categories: aggregation, majoritarian, consensual and reification. Along with the perspective of manufacturing consent, we are interested in the latter. Public opinion is not merely an aggregated voices of the voices of the mass; nor the consensus of the public is coincidental and haphazard. The concept of public opinion hereafter can be understood as a political space and political agency with certain types of ends (Boyte 1995). Noelle-Neumann (1993, 1995) posits that public opinion consists of two functions. First, public opinion is the result of rationality and efficiency claims on how people interpret the political spectacle (Edelman, 1995). It is instrumental in the process of opinion formation and decision making in a democracy.

Second, public opinion performs the latent function of social control. Its role is to promote social integration and to ensure that there is a sufficient level of consensus on which action and decisions may be based. This study illustrates its the latter function vis-a-vis media's influence.

MASS MEDIA & PUBLIC OPINION

Public opinion cannot communicate to public effectively without the use of media. Studies on media and public opinion also fall into two perspectives. Some scholars (e.g. Schoenback and Becker 1995) have suggested media are simply transmitters of public opinion. Opinion has made public first by face-to-face ways of communication, and then it is then picked up by and echoed in the media, exerting powerful pressure on every citizen. According to this perspective, public opinion polls fit comfortably within the tradition of a journalism of information (Salmon and Glasser 1995) in that opinion polls and other quantitative descriptions of such opinions are objective reflectors unprejudiced by ideology. They are designed to communicate the general will and are eventually reported in media (Herbst, 1995).

However, another groups of studies (e.g. Hertog and Fan 1995) tend to suggest that public opinion stems from and is influenced by media. In this respect, media carry out the interventionalist role. Hertog and Fan's examination (1995) of the impact of newspaper and newsmagazine coverage of AIDS in the U.S. from 1987 to 1991 found that prediction was unidirectional from news content to public opinion and not from opinion to consent. While news values are found to converge with social goals (Summer 1995), studies also confirm the findings by revealing that journalists and editors lack a general acceptance of the public view and that their attitudes towards some controversies are significantly different from the public (Grierson and Scott 1995).

Admittedly, mass media have been long regarded as agencies in the development of democracy and public opinion but it appears that in most of the research traditions only paid heed to the transmitter's role of media whereas their latent interventionalist role was unaware of. Nunez Encabo (1995) warned us of the latter which may potentially evolve as an "invisible hand" domineering society and political decisions; media should not pretend to represent public opinion because that would be an attempt to act as if the media were themselves public authorities, yet without having either the representation or the necessary controls.

RESEARCH QUESTIONS & HYPOTHESES

This paper explores the relationship among voting outcomes, media portrayal and public opinion in the 1994 U.S. Gubernatorial campaigns. The main thrust is on whether the public opinion or the mass media gained the upper hand to determine election outcomes. Elucidating the dynamics between public opinion and media, we focus on the untested assumption of the "center-seeking hypothesis" in gravitating political outcomes, a political-economic process of public opinion. According to Schumpeter (1942) and Downs (1957) the essence of a bi-partisan politics is that each of which attempts to maximize the share of votes received, and the voters' preferences are often normally distributed along a spatial scale representing a particular political issue. The result is that both parties offer the same program and with their policy focus on the media voter's preference and maintain a middle-of-the-road ideological position in order to appeal to the majority, and the outcome is Pareto-optimal (Frey 1984).

The research questions are:

(1) Based on this center-seeking hypothesis, with the media's influence, would those candidates whose ideological position portrayed as closer to the center be more likely to get the majority vote?

(2) Is there any discrepancy between the ideological "centers" (candidates portrayed to have received the majority support) portrayed in the media (as measured on a spatial scale) and the majority support reflected in opinion polls results?

(3) What's the implication of coincidence or discrepancy of media portrayal of favorable support and the majority opinion?

We come up with the following hypotheses. First of all, this study was to provide empirical evidence to examine the media portrayal of the "center-seeking" phenomenon and to test whether or not a candidate portrayed as a centrist by the media was more likely to win. Following the center-seeking hypothesis of Downs', we came up with the following hypothesis:

H1: The closer the candidates' issue stands (portrayed by the newspaper) are to the center of a political spectrum, the more likely the candidates will win elections.

Second, as we discussed earlier, as based on either the transmission or the intervenionalist views, media and public agendas are influencing each others. There should be small discrepancies between the two and public opinion tends to crystallize after media portrayal. Thus,

H2: There is a correspondence between the media portrayal of position of candidates nearness to the ideological center in news and the majority opinion.

CENTER-SEEKING IN A BI-PARTISAN POLITICS

There is a gap between the ideal of democracy and practice. Democracy necessitates compromise to reach an agreement. However, the bi-partisan nature of the U.S. democracy contradictorily suggests that there are at least two political groups that differ in fundamental ways such as ideologies and public policies. Converse (1988/89) suggested that, in resolving this dilemma, candidates of the two parties may simply resort to seeking the middle ground. In short, candidates who endeavored to win, he stated, were likely to subject themselves to the center-seeking mechanism.

Hotelling (1929) used the analogy of two competing merchants corresponding to the Democratic and Republican parties to capture the essence of the center-seeking hypothesis. He argued that both merchants would prefer to open their stores in a place where the greatest number of potential buyers were located. Only by locating the store as close as possible to the center of the "Main Street," where most people shop, could one merchant be sure that the competitor would not lure away more than half of the customers (Hotelling 1929, Downs 1957, Page 1978). In other words, it is necessary for political parties to stay in the center of the liberal-conservative continuum in order to win the voters.

Downs (1957) elaborated on this political analogy and pioneered the center-seeking mechanism hypothesis. One of his economic models of democracy conceptualized that the distribution of public (voters') opinion on issues and policies resembles a uni-modal or bell-shaped distribution. This suggests that the majority of voters center around the middle of issue or policy stands. In order to win in an election, it is important for the candidates of the two parties to cater to the majority voices among the voters and compete for the center to maximize votes. A pragmatic strategy to do that, as suggested by Downs's center-seeking model (1957), is to stay in the middle-of-the-road or to be a so-called "centrist." Downs theorized that an average voter's ideological position is dotted near the center of the left-right continuum. Occupying the central portion of the continuum, logically, centrist candidates would win.

For decades, political scientists have been testing the concept of center-seeking by formulating a spatial model of voting. Basically those researchers (e.g. Page 1978, Enelow and Hinich 1981 1982 1984) compared voters' and candidates' positions on an ideological spectrum of issues. Their studies indicated that candidates whose positions are closer to the voters are more likely to win.

MEDIATED REALITY AND POLITICAL INFORMATION

With the increasing importance of the mass media as sources of political information in election campaigns (Graber 1989, Khan 1993, West 1993), an additional aspect of the spatial theory deserves attention. If most voters essentially get all their information about the candidates through the mass media and if there are seldom contacts between candidates and voters, whether the candidates are perceived as centrists or not should mainly depend on how the media shape and frame the candidates' positions. There may be the possibility that the candidates' "real" positions may not matter as much as how they are portrayed by the media. It is essential to contrast the candidates' positions in media and voters' actual positions to see whether the constructed reality in news are the determinant of election victory.

Of the various media forms, news appears to play the most significant role. News, as suggested by media sociologists (e.g. Tuchman 1978), is a "window on the world," and reality for many is constructed by the media (Pan and Kosicki 1993). How we function is based on the "pictures in our head" about the outside world, although the pictures may deviate from reality. There is no doubt that the main information source about the world, nowadays, is the media (Lippmann 1922, DeFleur & Ball-Rokeach 1989, 258-262). As Nimmo and Combs suggested, political realities are also mediated illusions (1983). Based on these arguments, news has also become the most important source of information for voters to perceive the ideological positions of the candidates.

Most people do not have direct access to candidates, especially those in higher races. In other words, what voters learn "is not the real campaign but the media's version of it" (Patterson 1980, 9). Thus, it can be suggested that no matter how far away the candidates' "real" messages are from what is shown in the media, only the mediated messages count. This explains why candidates strive for media's positive coverage (Patterson and Davis 1985). An extreme example is a cartoon in which a boy asks his father: "Dad, if a tree falls in the forest, and the media aren't there to cover it, has the tree really fallen?" (Noelle-Neumann 1993). In the reality of politics, if the media do not cover a candidate, the candidate virtually does not exist and has no chance of winning (Meyrowitz 1992).

In terms of the power of the media in elections, Nelson (1993), Patterson (1980), and Wattenberg (1994) have argued that it has been increasing while the function of other message outlets such as party organizations has been on the decline. According to her analysis of Italian politics, Mandelli (1995) argued that the media have been playing a more crucial role in political orientation because people's interest in politics has increased, while their trust in political parties has diminished. This echoes other scholars' arguments that people have become more dependent on the media, instead of party organizations, for political information.

The present study focused on issues. The print media, especially newspaper, appear to be an ideal source of information on candidates' policy stands as revealed in debates and speeches, which are less likely to appear in TV news or political advertising. Unless voters view debates and speeches on television (if these are available in the first place), only the newspaper is likely to provide a full or extensive transcript. Although there is an argument that television news is a primary source of political information, when compared with other media such as the broadcast media, Patterson (1980) found that the print media provide more detail and depth in discussing issues. Nimmo and Combs also called television news an "acquaintance medium" instead of a "source of knowledge" (1983, 45-46). These suggest that television news might not reveal enough information on candidates' ideology, which is required to test the center-seeking hypothesis.

There is no doubt that paid media such as television commercials are under direct control of the candidates, who can convey information of their choice to the public. In fact, a significant number of voters feel that political advertising helps them make voting decisions in general (Faber and Storey 1985). By contrast, news coverage, which is controlled by journalists, may not focus on what the candidates intend to express (Alger

1989, Patterson 1980 1994, Patterson and Davis 1985). However, political advertising focuses more on images rather than issues, the main focus of our study (Shyles 1984, Latimer 1989). Besides, newspapers have started to provide more coverage of political commercial content (West 1993, 57-60). Thus, newspapers appear to be the best place to observe the framed political and ideological stands of the candidates.

POLITICAL IDEOLOGY AS A REFERENCE FOR VOTING CHOICE

Political ideology is defined a set of "fundamental beliefs or principles" concerning the goals of political or governmental action as well as the "proper procedure" for making governmental decisions (Flanigan and Zingale 1991, 102). Candidates' positions on the political ideological spectrum is highly related to their decision-making processes or public policies. Political parties use ideology to "remind voters about their views of the good society and how to achieve it," which helps voters to "evaluate the implications of the party's approach" (Popkin 1994, 52). Therefore, political ideology has long played an important role in election campaigns.

According to a prospective-policy-choice approach of voting theory, voters base their choice on their perceptions of what candidate policy preferences will be if elected (Joslyn 1984). A similar "proximity voting" hypothesis suggests that people vote for the candidate or party "whose position is nearest to theirs" (Popkin 1994, 61). As a result, before making choices, voters are interested in what an elected candidate would do after taking office (Joslyn 1986). The ideological position of the candidate here is considered as his or her "average" ideological position on different issues that the majority of voters find important.

Analyzing candidates' positions on issues, Page (1978) noted that they tend to be consistent over time. Thus, even if a candidate's stance on a certain issue is reported infrequently by the media, voters may still be able to correctly perceive the ideology of the candidate. In this way, media's portrayal of candidate's political ideology offers a good frame of reference or an information "short-cut" to help voters make decisions.

By no means can candidates convey a detailed list of their stands on a variety of issues to the voters. Also, voters may not have the ability, time, or interest to comprehend such a list. Nevertheless, every voter cognitively possesses certain kind of ideology which widely used and reflected in daily life and which is "heavily charged with political connotations" (Larrain 1979, 13). Voters may use ideological labels to forecast which policy positions a candidate will adopt if elected (Converse 1964, Hinich and Pollard 1981, Popkin 1994). Stimson's study (1984) did provide evidence that voters with a greater ability of ideological conceptualization had a higher issue constraint. In other words, voters' stands on most issues were highly correlated with the self-rating of liberal-conservative positions. Candidates certainly are likely to have high issue constraint. Therefore, their positions on few issues should be good indicators of their stands on other issues in the political spectrum. As a result, it is easy for voters to predict candidates' future policies if elected.

CHALLENGES TO THE CENTER-SEEKING HYPOTHESIS

Much of the literature reviewed above suggests a significant role of the political ideology and center-seeking mechanism. However, the "center-seeking" mechanism is not accepted without dispute. Some researchers (e.g. Campbell et al. 1960, Pierce 1969, Nie et al. 1976) have questioned the power of political ideology in terms of whether the public has the ability to perceive and articulate it. Voters and candidates may react to political ideology in an inconsistent manner. Americans voter who are "liberal" on one issue may not be the same on another and they may be "neither consistently liberal nor conservative on a wide range of issues" (Converse 1964; Nie and Anderson 1974, Flanigan & Zingale 1991). Voters may misinterpret candidates' stands (Page and Jones 1979). For instance, if a voter likes or dislikes a candidate, the voter might think that the distance between their issue stands are closer or farther than actual. The data presented by

Flanigan and Zingale (1991, 103) also suggested an ambivalent view of the power of the party's ideological spectrum. In 1980, only 21 percent of the voters had a concrete conceptualization of the liberal-conservative ideology spectrum. Those who could conceptualize "group benefits," such as the rich versus the working class, or the consumer versus big businesses, accounted for only 31 percent. If almost half of the voters (48 percent) could not conceptualize at least some elements of political ideology, its power was questionable.

A number of other counter-factors against ideological influence were provided. Some suggested other mediating factors (e.g. the images of the parties and candidates) are more important (Shyles 1984). Other studies down-played the factor of ideology and argued that party affiliation was usually the most important factor in voting decisions (Flanigan and Zingale 1991, Joslyn 1984, Pomper 1975, Pomper and Lederman 1980, Popkin 1994). "Ideological disposition" is only one of the numerous factors of vote choice. Being one of many factors, the impact of ideology seems to be diluted. The most recent challenge to the centrist strategy was the Republican victory in the 1994 mid-term election, which was interpreted as a right-wing victory by the press (e.g. Fineman 1994, Goodgame 1994). If right-wingers rather than centrists won, competing for the center of the ideological spectrum may not be a winning strategy.

Nevertheless, the assumption that the center is on the right in 1994, as Fineman (1994) and Goodgame (1994) suggested, was countered by other statements. For example, some reporters offered an explanation of the Republican victory: the Democrats had moved too far to the left and thus were rejected by the voters. Republicans won because they were closer to the center of the ideological spectrum by comparison. They also argued that the Republican party's conservative platform did not affect voters' perceptions of individual candidates. To survive the next election, they said that the Democrats should move back toward the center (Berke 1994, Devroy 1994). The pro-centrist argument was further supported by the analysis of a few winning candidates' ideological positions. For example, several re-elected Republican governors of large states had adopted a "softer approach on the conservative agenda." Their policies had taken a mixture of liberal and conservative positions (Lacayo 1994). For instance, they had taken liberal stands to "tax the rich," support gay rights and abortion, but still upheld conservative policies such as downsizing the government. The "mixture" of issues may have made them appear to be centrists.

MEASUREMENT OF CANDIDATES' AND VOTERS' POSITIONS

It is not easy to summarize Downs' theories and models (1957) of various political systems (e.g. multi-party systems). He also changed these models by adding new assumptions and variables, such as voters' alienation when two parties are identical on some stance. For the purpose of this study, only one (bi-partisan) model was chosen.[2] We will further examine whether the model matches the shape of the distribution of public opinion in reality.

Downs' work appeared to have a great impact. Many scholars developed mathematical formulae to explain and expand on Downs' simplistic uni-dimensional models (e.g. Shepsle 1972, Davis and Hinich 1966, Davis et al. 1970, Hinich and Pollard 1981, Enelow and Hinich 1981 1982 1984, Hinich and Munger 1994).

For instance, Hinich and his co-authors developed multi-dimensional or spatial models and added different assumptions and variables to these models (such as additional issue dimensions, voters' alienation and their ability to recognize all campaign issues). As Page (1978) put it, these theoretical studies are problematic because they commit themselves to assumptions, which results in "letting the theory stand or fall in terms of its predictive power." These authors intended their theories to apply "only when those assumptions are met."

Including Hotelling and Downs, all these scholars are theorists. Their works focused on theoretical deduction and model development. It is understandable that

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theorists are less concerned about empirical data. Therefore, these scholars did not provide information on the empirical relationship between center-seeking and winning, not to mention mediated center of candidates and voting outcomes. Even though Enelow and Hinich stated that the "candidate who is the closest to the center of the predictive space stands the best chance of winning" (1984, 461), their conclusion was mainly based on theoretically mathematical calculations.

Prominent as this center-seeking phenomenon may be, few empirical studies have provided sufficient information on how to gauge the positions of voters and candidates, or whether their positions are close to the center of the conservative-liberal spectrum.

The most basic measurement is to ask voters to report their own positions, and their perception of candidates' positions on an issue spectrum. To offer an alternative to the spatial method used in the studies mentioned above, Ranbinowitz and MacDonald (1989) suggested a "directional theory" formula. The spatial method measures the relationship between winning and the distance between voters' and candidates' issue positions. The directional study measured not only the positions but also the intensity. To do that, the researchers had to examine whether a candidate and a respondent were on the same side of an issue (which determined the direction), and then how far away their positions were (which determined the intensity). They illustrated their calculation using the National Election Study (NES)3 (Stimson 1984, Flanigan 1988, Flanigan and Zingale 1991, Abramson et al. 1986 1990) data. As will be discussed later, the NES data cover only a few issues, which casts doubt on the power of the directional method.4

Among the few researchers using empirical data, Barnett et al. (1976) measured the voters' estimation of their spatial distance from the candidates on ten items in a congressional election in Michigan.5 They observed the spatial distance between the voters and candidates and then advised the Democratic candidate to move his positions toward those of the voters. For example, when most voters' positions were close to the Democratic party, they would advise the candidate to emphasize his party affiliation. This study implies that those who manage to decrease the spatial distance from the voters are more likely to win.

However, a few criticisms are offered. In the 1976 study, there was only one setting: north-suburban Detroit. The sample was mostly limited to the Democrats. The spatial distance was calculated in terms of four issues only, namely: crime prevention, integrity and honesty in government, inflation, and busing. Thus, few generalizations could be made. The present study took a further step to include a more geographically representative sample and examine more issues to make generalization possible.

In addition, it should be noted that the Michigan study focused on the ideological distance between voters and candidates, instead of the political spectrum or the center of it as Downs suggested. However, it still can be argued that a spectrum was the underlying reference for the measurement of distance.6 Nevertheless, the method employed in that study was problematic, which will be discussed in the next section.

THE IDEOLOGICAL CENTER & THE NATIONAL ELECTION STUDIES

To test a center-seeking theory, the first task is to define the "center."7 To do so, we should measure the voters' positions and candidates' position as portrayed in media. One common method of measuring ideological issue stands, as in the National Election Studies (NES), was a seven-point left-right continuum scale. Survey respondents were asked to estimate their own positions and their impression of candidates' positions based on the scale. The extreme left (point 1) and extreme right (point 7) were defined by examples, with the points from 2 to 6 left undefined. This provided an easy and flexible criterion for the respondents to position their stands. For example, an issue question was asked this way:

Some people think the government should provide fewer services, even in areas such as health and education in order to reduce spending. Suppose these people are at one end of the scale at point 1. Other people feel it is important for the government to provide many more services even if it means an increase in spending. Suppose these people are at the other end, at point 7. And of course, some other people have opinions somewhere in between at points 2, 3, 4, 5, or 6. Where would you place yourself on this scale, or haven't you thought much about this?

The respondent was then asked to place candidates' positions on the same scale. Candidates' and voters' positions are assumed to be additive and thus can be aggregated and compared. The Detroit election study by Barnett, Serota and Taylor (1976), as mentioned earlier, measured the ideological positions of the candidates and their parties in a similar but arguably problematic way. Instead of offering clear definitions of reference points (two ends) and an easy-to-understand scale (like the NES), their reference frames were difficult to comprehend, especially for lower educated respondents. The following is an example of how questions were asked in their study. Respondents had to deal with this highly abstract "concept scale." It is reasonable to question the meaning of its measurement results.

If John. F. Kennedy and Dwight D. Eisenhower are 10 political inches apart, how far are:

Crime prevention and the Republican party?______
Crime Prevention and Inflation?_______

The related studies did not make a big step until Page (1978) contributed to the measurement of the ideological center by analyzing candidates' speeches and other forms of statements to summarize their positions on various issues, and by comparing the positions against two measures of public opinion. His first step was based on the results of national opinion polls, of which the results were a yes-no dichotomy. Page then calculated the number of times a candidate was in agreement or in disagreement with the "plurality of the public." This method measured which candidate agreed more often with the public. The frequency of a candidate's agreement with the public was considered a measure of closeness to the center. For example, if candidate A agreed with the public 90 percent of the time (on yes-no survey questions), while candidate B agreed 60 percent, then A was closer to the center of public opinion. To conceptualize the measure, the center was regarded as the desire of the majority. With individual issues, the candidate who agreed with the majority was closer to the center (on one issue). When the issue stands were summed, the candidate who agreed with the majority the most was closer to the aggregated center (of all issues).

The second method utilized by Page was a "closeness-to-the-medium" technique with multiple-alternative questions. On each issue he estimated the distribution of public opinion (and thus the center). He then judged in which quartile a candidate's position fell. For instance, if candidate A's position fell in the second or third quartile, and B's fell in the first or fourth, then A was closer to the center.

The second method was more popularly accepted to develop methodological measures, including the NES, for political ideology for it avoids the problem of only categorizing the issues into dichotomy. Such measure was to develop a scale for each issue, and regard the center of the spatial scale as the ideological center. This is the second way to conceptualize the center: the center of the scale as the center of public opinion. Our study is going to examine this assumption that the center of the scale is equivalent to the majority opinion.

This measure follows the following logic. On a 7-point scale, point 4 was the center "by definition." Based on this method, survey respondents would have fewer problems with self-reporting of their own positions and their perception of candidates' stands on the scales. Although candidates' actual stands may not be accurately reflected, at least, the center of public opinion can be calculated. Also, candidates' real positions are not as important as where voters think they stand, since voters are likely to cast their votes based on their perceptions rather than reality.

To determine the center of issues as a whole, Page (1978) also noted that it would be ideal to not only count or tabulate issues, but also to weigh each issue by its salience to the voters, as well as considering the interactions between issues. He however admitted that such an issue-aggregation task would be difficult due to the lack of knowledge to weigh and measure the distance among those issues.8

PROBLEMS ON MEDIATED IDEOLOGICAL CENTER & MAJORITY OPINION

The above studies left us with three important problems. First, they did not pay enough attention to the mass media's role in influencing voters' perception of candidates' ideological positions. No matter what candidates' stands on issues are, if voters do not have the information, logically candidates' "real stands" would not count.

Second, the above studies assumed that a measure of voters' ideology and candidates' ideology can effectively show the cognitive distance between the former and the latter, and hence predict the voting outcomes. But this disregards the voters' perception of candidates' position is mediated and hence fails to calculate the distance between the ideological center portrayed in media and the public opinion.

Third, these studies did not offer a satisfactory solution to the definition of the center (of issues). Whether the centers reflected in media are the "real" majority public opinion should be further examined. The present study was to address these questions.

THE NES DATA

The NES data contain a 7-point scale which measures the ideological position of the voters. The NES scale uses the preferable logic of the second scaling method suggested by Page (1978), as previously discussed. That scaling method divides the ideological distribution (of issue stands) into several intervals and treats the mid-point of the scale as the center of ideology. This method was superior to the first method with problematic dichotomy, as explained earlier (For the scales used in this study, see Appendix I).

Downs' model, which was the theoretical basis of this present study, assumed the center of the scale as the center of public opinion. Secondary analysis of the NES data showed the mid-points of public opinion on several issues (that were similar to those examined in the present study) were found either on or very close to the mid-points of the scales measuring ideology (Abramson et al. 1986 1990).9 This provides us some evidence that there is close resemblance between the majority opinion center and the ideological center of media.

As a pre-study, we analyzed the 1992 NES data and found that the ideological distribution of the respondents (including both voters and non-voters) was a normal distribution as theorized by Downs.10 According to the same data, the means (center) of public opinion on issues measured by scales (aid to blacks, health care, government service and spending, defense spending, and government involvement in jobs and standard of living) were very close to the mid-points of the scales (thus were close to a normal distribution).11 Although the NES did not include all the issues, the fact that the several issues included by the NES and the respondents' ideology were (or being close to) normal distributions coincided with the basic logic of the present study. In other words, in general it appears that the center of public opinion usually falls in the middle of two extremes. It would also be reasonably to expect the mid-points of the scales (of the present study) were close to the center of public opinion in reality.

CONSTRUCTING THE SPATIAL SCALE

This development of the spatial scale in present study to measure the ideological centers in local campaigns followed the logic of the seven-point National Election Studies (NES) scale (e.g. Flanigan 1988 1992) which has been tested for validity and reliability. We matched the NES data with scale developed to measure the ideological position of the candidates framed in media. However, this study used a five-point rather than seven-point scale for sake of coding. The 5-point measurement was designed to attain a more reliable coding by avoiding inconsistent codes between the center and the extreme. The 5-point scale corresponded to the left-right or liberal-conservative spectrum which was constructed to measure the ideology of the candidate framed by each article.

In practice, the coders were instructed to treat the center of each scale as "neutral" or "middle-of-the-road," which followed the logic of the NES scales. When a coder read the definitions of the two extremes on an issue and presented a 5-point scale, the middle would be point 3.

Since coding was performed on each campaign individually, the coders were able to compare the relative stands of both candidates on each issue. Using the definitions of the two extremes and center as a guideline, the coders were able to determine the relative difference between the two candidates (based on press coverage) on each issue. A good example was when a candidate said "no new taxes," which suggested neither cutting nor increasing taxes, the candidate was coded as being on point 3. When a news story stated that candidate A would increase taxes by $300 million while B would increase them by $150 million, then A was coded as being more extreme than B. In another state with a different political climate, if candidate C wanted to increase taxes by $5 million while D advocated only $2 million, then D would still be coded as being closer to the center.

An underlying guideline was that the current law or situation in a particular environment was treated as the center. For instance, on death penalty, candidates' ideological positions were judged by whether they advocated more or less strict punishment than what their state already had. In other words, "current situation" was the reference point for comparison (which was the center). In a political environment where the public opinion center appears not to be in the center of a scale (for example, if the real center is 3.70 on a 5-point scale), this method may still work. What our method in fact examines is which candidate is more extreme than the other. Where the center is appears to be less important. For instance, if candidate A is portrayed as being on point 5, and B on 4.20, then B is still more likely to win. Therefore, the scales would work in various political environments where the distributions of public opinion or policy stands are different.

When a story did not offer enough reference, such as when it discussed only one candidate's stance, coders took a "conservative" approach. This means that when a coder was not sure whether a 4 (or 2) or 5 (or 1) was appropriate, a 4 (or 2) was assigned. For example, if a candidate invited people of both sides to a meeting discussing environmental concerns, and took a non-centrist position by favoring environmental protection over local economical development, this candidate would be assigned a score of 2.00. The reason is that if this candidate took an extreme position, it is highly unlikely for him or her to invite the other side to this meeting. On other occasions when only one candidate was mentioned in an article, coders were encouraged to compare the opponent's positions according to other articles published around the same date (to avoid the possibility that the opponent's stance has changed over time). If no reference could be drawn, it was up to the coders' discretion whether and how to code a story.

THE CHOICES OF ISSUES

The unit of analysis in this study was a candidate's issue position as portrayed in a news article. The choice of issues depends on the controversy of the issues in the campaign studies. First, we picked up the issues measured in the NES which can be placed on a left-right spectrum; and among the issues only some are measured on a seven-point scale. They are 1) services vs. spending, 2) defense spending, 3) government vs. private health care, 4) government's role in employment and living standard, 5) government helping blacks and other minorities, and 7) women's rights. The NES also measures the ideological position of the voters on the liberal-conservative scale. These eight questions can be measured in terms of candidates' positions in news content under the left-right ideological spectrum. The two extremes of the five-point scale were defined (see Appendix I). The seven issues related to the position of candidates measured were crime punishment, gender equality, racial equality, government involvement, health care, military budget and welfare. We also included the direct mentioning of ideological positions of candidates manifested as labels in news content. Each of the issues was placed in the context of the liberal-conservative spectrum. For example, conservative means being opposed to over-centralization of governmental power, whereas liberal emphasized a "regulated" free-market economy, and social equality.12

However, although rendering comparisons between public opinion (described in the NES data) and the ideological centers shown in newspaper possible, we found that inclusion of only seven issues in the analysis failed to collect enough samples to test the center-seeking hypothesis. Moreover, it seems that the most controversial and important issues in the 1994 gubernatorial campaigns. Thus, for the analysis of the candidates' ideologies in newspaper (and in the test of the first hypothesis), we included six more issues, abortion, labor, business, environmental protection, taxation and gay rights which are not found in the NES. The six issues chosen were based on the controversies raised during the 1994 campaigns.

SAMPLING & PERIOD OF STUDY

Five states in the U.S. (California, Colorado, Florida, Massachusetts, Minnesota) in five different geographic areas which produced a geographically diverse sample, were studied. Corresponding state opinion polls' results were taken out from the 1994 NES data for analysis.

The five major newspapers were chosen were the Denver Rocky Mountain News, Miami Herald, Los Angeles Daily News, Minneapolis Star Tribune, and Boston Globe. The samples from these five papers included ten candidates, with five from the Democratic Party and five from the Republican Party. There were five male incumbents and one female among the candidates. The sample covered five Gubernatorial campaigns.

The sampling was based on three constructed weeks (Riffe, Aust & Lacy, 1993). The time period was from mid-September (after the primaries) to early November (the election day). A total of 283 newspaper articles on the general elections of five races in 1994 were selected. The text of these stories were downloaded from a national computer on-line service, the American Online (AOL). The AOL has a "news library" section with the text of newspapers from various states.

Of the 283 articles, 169 (59.72 percent) articles did not reveal any ideological position of the candidates studied. The 169 articles included coverage of the "game," (e.g. who "won" a debate, poll results, or the firing of a campaign manager), campaign-specific issues (e.g. disagreement on a harbor construction or a local referendum), personal image (e.g. honesty or integrity), and human interest stories such as a candidate's car being chased by another vehicle on the highway. The fact that about 60 percent of the articles did not reveal any issue information echoes some scholars' criticism of the media for not providing the public with adequate political information (Graber 1992, Jamieson 1992b, Patterson 1994).

A total of 114 (40.28 percent) articles, which provided issue information on the candidates, were analyzed and coded. These articles included news coverage, columns, and editorials with information reflecting issue stands of the candidates. Letters to the editor were excluded, unless they were written by a candidate stating issue stands. The reason was that the credibility (as perceived by potential readers) of these letters were not likely to be as high as other stories written by reporters. The news coverage included the content of debates, speeches, political advertising, and other forms of statements.

Among those 114 articles, 15 were from California, 18 from Colorado, 20 from Minnesota, 34 from Massachusetts, and 27 from the Florida campaign. Of these 114 stories, 49 (42.98 percent) included information on both candidates in a race. Altogether, 175 cases were found. There were 327 discussions of the 13 issues13 (see Appendix I).

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Among them, the issues of taxation (62 times, or 18.9 percent), crime punishment (59 times, or 18.04 percent), and government involvement (58 times, or 17.73 percent) were most frequently discussed. A trained second coder viewed 15 percent of the selected 114 newspaper article which pertained to the elections studied. The inter-coder reliability was .93.

ANALYSIS

To test the first hypothesis, the mediated center-seeking hypothesis, the analysis was to convert the ideological scores (from 1 to 5) of each candidate on each issue in each article to a measure of "how far the candidate is from the center of the ideological spectrum." The center "3" was re-coded into 0 (0 unit away from the center); 2 and 4 were re-coded into 1 (one unit away from the center); and 1 and 5 were re-coded as 2 (two units from the center). The distance of a candidate's ideological position from the center in a news story was summed, then averaged to yield a mean of the centrality score, namely the "center mean." The center means of the winners and the losers were compared.

The original scores of issue positions were also calculated (namely the "issue mean"), but were not utilized in determining centrist tendency. For example, in a newspaper article candidate A was assigned a score of 2.00 on one issue, and a 4.00 on another; the mean would be 3.00 (the mean of 2.00 and 4.00), which superficially was the center. However, in fact this candidate was away from the center twice (for being 2.00 and 4.00 on two issues); thus the center mean would be (1) one.14 By comparison, if a candidate is assigned a score of 3.00 on one issue and 4.00 on another, then the issue mean would be 3.50, and center mean would be .50. Superficially candidate B is more extreme then candidate A in terms of issue means (3.50 vs. 3.00, with 3.00 as the center). However, in fact, B was closer to the center because B is away from the center for only 1 unit once (score 3.00's center mean was zero, and score 4.00's center mean was 1.00, and the average was .50), while A was away from the center for one unit twice (both 4.00's and 2.00's center means were 1.00, and the average was 1.00). Nevertheless, issue means could still illustrate a general tendency of positions on the political spectrum, although center means should be the focus of our study of the center-seeking theory.

Second, to test the second hypothesis, we convert the seven-point NES scale to a five-point scale by weighing with a proportion. The issue means of each candidate and the overall of the candidates on all issues were used to compare with the majority opinion (the center of the opinion) as shown in the NES. The majority opinion is defined as the actual center of the public opinion on a specific issue. i.e. the mean of the opinion (converted to a five-point scale) on an issue. We observed on which issues, the ideological positions of the candidates matches with the majority opinion. And we also compare the overall issue mean of a candidate with the averaged majority opinion on all issues. We also calculated the discrepancies between the averaged majority opinion with the theoretical spatial center, as we calculated the center mean of the candidate. For example, if the averaged majority opinion is 4.00, then the discrepancy is 1.00 (4.00-3.00). The discrepancy is compared with the center mean of the winner and the loser to determine which one is closer to that discrepancy. The match between the opinion (discrepancy) and the ideology of the candidate may suggest that the opinion influence media or vice versa.

FINDINGS

The Tendency of Center-seeking

In comparing the "center means" of the winners and of the losers based on the analysis of news coverage, we found that there was a significant difference between the winners and losers' mean distances from the center in each of the campaigns.

In the Colorado campaign (n=26), the "center means" of the winner and the loser were .60 and 1.10 respectively, with t=-2.38 (p< .05). In the Florida campaign (n=37), the "center means" of the winner and the loser were .69 and 1.13 respectively, with t=-2.77 (p< .01). In the California campaign (n=23), the "center means" of the winner and the loser were .58 and 1.06 respectively, with t=-2.15 (p< .05). In the Minnesota campaign (n=36), the "center means" of the winner and the loser were .50 and 1.33 respectively, with t=-4.94 (p<.01). In the Massachusetts campaign (n=53), the "center means" of the winner and the loser were .57 and 1.10 respectively, with t=-4.03 (p< .01). It is noted that in each of the five campaigns, judging by "center mean," the winner was always closer to the center (see Tables I-V).

Insert Table I-VI about here

Some researchers might argue that pairwise t-tests are more appropriate for our analysis. An analogy explains this well: you measure the height of a person 100 times, but you still measure the same thing. Following this logic, we should look at only the aggregate center-mean of each candidate.

A matched pair t-test on center-means was performed, which compared both candidates in each of the five campaigns. The t-value was 8.00 (p< .01, df=4).

The data from the five election campaigns were then combined. The distribution of candidates' ideology (i.e. the grand issue means) coincided with the Downsian model. It was a normal distribution with 66.3 percent of the cases falling between -1 and +1 standard deviation. This meant that most of the ideological stands of the candidates reflected in the media were situated at the center. This finding suggested that candidates competed to the portrayed as taking centrist issue positions, which supported Downs' theory (although not directly). When candidates want to be defined as centrists, and the voters' ideological distribution shows that most voters are moderate, we can link the two and argue that: (1) people vote for candidates whose ideology are closer to theirs; and (2) since most voters are centrist, centrist candidates are likely to win.

Combining the five campaigns (n=175), we calculated the grand "center means" of the winners (n=85, mean = .58) and of the losers (n=90, mean = 1.14). There was a significant difference between the winners' and losers' mean distances from the center, with a higher t-value of -7.56 (p< .01). The winners were much closer to the center than the losers (See Table VI). This result generally supported the hypothesis that the closer the candidates' issue stands (portrayed by the media) are to the center (of the political spectrum), the more likely they would win. The NES studies also shows that the five states' averaged actual opinion center is 3.01 which reflects very accurately the theoretical center we developed. The distribution of the actual opinion resembles a normal distribution. The mean (4.21 with conversion) matches the median (4.25) and the mode (4.00).

Coincidence of Ideological Center and Majority Opinion

Comparing the ideology of the winning candidate and the losing candidates with the public opinion on the issues (self-claimed ideology, crime punishment, gender equality, racial equality, government involvement, health insurance, miliary spending, welfare policy) in five states (Colorado, Florida, California, Minnesota, Massachusettes), we found that on most of the issues, the winner's ideology is closer to the majority opinion.

In the Colorado Gubernatorial campaign, on media-labelled ideology, crime punishment, gender equality, government involvement, and military spending, the winning candidate's position is closer to the public opinion. There is only no difference on the issue of racial equality (3.00). On the average issue mean of the eight items, the winner is 2.98 (n=14) and the loser is 4.09 (n=12), it is obvious that the ideology of winner is closer to the averaged majority opinion on the eight items (2.94 based on NES data) than that of the loser. The center mean of the eight items (how close the position is close to the theoretical center of the spatial scale) of the winning candidate (.56) is close to the theoretical center (only .56 from the center) (c.f. the center mean of the loser is 1.18). The NES data further confirms the center-seeking hypothesis for the spatial distance between the majority opinion to the theoretical center is minimal (.06). The closeness of the issuer mean of the winner to the majority opinion and the relatively shorter discrepancies between the spatial center and the majority opinion suggests that the definition of the spatial center is theoretically sound as it accurately reflects, on most of the issues, the majority opinion lies.

In the Florida Gubernatorial campaign, except on the issues of self-claim ideology and racial equality, along the left-right ideological spectrum, the ideology of the winner is closer to the majority opinion than that of the loser. The exception may be due to the unique political situation of the state studied.15 The averaged issue means of the winner (2.67, n=15) is closer to the majority opinion (3.06) than the loser (4.29, n=22), and the center mean of the winner (.67) is closer to the discrepancy between the majority opinion and theoretical ideological center (.06).

In California and in Minnesota campaign, since there is a lack of coverage on candidates' position on some items, only a few comparisons can be made. In California, among those, the winner also portrayed as having an ideology on racial equality and government involvement than the loser. In Minnesota, the winner is also shown to have an ideology on government involvement, health insurance and welfare policy than the loser. In both states, the issue mean of the winner (MN 2.95, n=18; CA 3.63, n=10), as expected, is close to the majority opinion (MN 3.07; CA 2.99) whereas the issue mean of the losing candidate is 1.67 (n=17) and 4.04 (n=13) respectively. The center mean (MN .45; CA .63) is closer to the difference between the majority opinion and theoretical center (.07 and .01).

In Massachusetts Gubernatorial campaign, on media-labelled ideology, crime punishment, government involvement and health insurance, the ideology of winner, is portrayed nearer to the opinion than that of the loser. The issue mean of the winner (3.45, n=27) is again closer than the majority opinion (2.86) than that of the loser (3.53, n=26) and the center mean of the winner (.56) is closer to the difference between the majority opinion and theoretical center (.14).

Insert Table VII-XI about here

CONCLUSION AND DISCUSSION

Center-seeking Hypothesis

The empirical evidence of press coverage in this study supported the center-seeking hypothesis. Those who were portrayed by the media as centrists would be more likely to win. This may imply an effective strategy for candidates is to seek the middle-ground to win elections. Although an office-holder is supported by only a portion of the voters, he or she is elected to be the leader of the whole population. In order to serve all the people with different ideologies, the center seems to be a reasonable position.

The mediated center-seeking hypothesis also helped us reconsider the effect model. Although it is not sufficient to claim center-seeking is a direct cause of victory, media are clearly demonstrated to have framed the ideological center. With the latent effect of the center-portrayal of media, media's framing of the candidates is on a par with possession of power to influence candidates' strategies and the voting outcome since essentially all voting information is mediated (Pan and Kosicki 1993).

Correspondence of Majority Opinion & Mediated Ideological Center

The proximity of the ideology of the elected and the majority opinion suggests that there is a close correspondence between the two and that the public opinion and mediated center are influencing each others. One further question needed to be addressed is whether it is the media which influence the public opinion by swaying voters' perception of majority opinion, or whether it is the public opinion influences whom the media portrayed as being situated in the middle-of-the-ground position.

Illustrated with results of the past studies, it is more probable that the former is likely to be true. That is, the majority voice or opinion may be crystallized around the framed ideological center in the media, and this in turn influences the election outcomes (See Figure 1). Previous studies (e.g. Noelle-Neumann 1989) demonstrate that since rarely do people have perfect information, people, even journalists, tend to follow their perceived dominant opinions. And studies in Germany showed that there is a high correlation between the voters' perceived dominant opinions and the media's opinion. In other words, when a candidate is reflected by mass media as the one supported by the majority, the voters will tend to express a supportive opinion towards the candidate (Noelle-Neumann 1989 1993). With the addition of the center-portrayal effect, media portrayal of the center is also perceived as the dominant ideological center which hence attracts voters and form the majority opinion.

Insert Figure I about here

Mediated opinion is equivalent to biased polls?

Center-seeking function also bears important implications to media and polling effect. Since the emergence of polls, the quantitative descriptions of popular opinion, or "the public opinion apparatus" in elections (see Jacobs and Shapiro 1995 for an overview), pollsters always claim that they are neutral, objective, and autonomous (Herbst 1995). Biased polls or reports covering polls that favor or denigrate certain parties may undermine their legitimacy. Slanted techniques in polling or an imbalance reporting which violates the professional ideals may be consciously avoided. But the closeness of the mediated opinion and the public opinion or a probably directional effect from the "centering" effect related to media coverage to majority opinion may behave as a "poll," not as a quantitative and objective measure, by as a spiralling and swelling pseudo-majority opinion, which eventually may become the bona fide majority opinion. In this respect, media reporting of opinion polls in symbolic way, serve to, besides portraying authorities, communicate themselves as authorities in public debate (Herbst 1995). The study of the linkage between media coverage, ideological centers and majority opinion help reconsider the effect model of media and public opinion.

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Appendix 1
Coding Sheet

Case number: ___________

1. Article #:____________

2. Campaign: ______
    1. Colo. Gubernatorial
    2. Fla. Gubernatorial
    3. Calif. Gubernatorial
    4. Minn. Gubernatorial
    5. Mass. Gubernatorial

3. Candidate: _______
    1. Roy Romer (D)
    2. Bruce Benson (R)
    3. Lawton Chiles (D)
    4. Jeb Bush (R)
    5. Kathleen Brown (D)
    6. Pete Wilson (R)
    7. John Marty (D)
    8. Arne Carlson (R)
    9. Mark Roosevelt (D)
    10. William Weld (R)

4. Win/Lose: _________
    1. winner: (1, 3, 6, 8, 10)
    2. loser

5. Party: _____
    1. Republican
    2. Democrat

6. Sex: _________
    1. Female (5)
    2. Male

7. Incumbent: _____
    1. Yes: (1, 3, 6, 8, 10)
    2. No

8. Newspaper: ______
    1. Colo. Denver Rocky Mountain News
    2. Fla. Miami Herald
    3. Calif. Los Angeles Daily News
    4. Minn. Minneapolis Star Tribune
    5. Mass. Boston Globe

9. Publication Date: ____/____
MM / DD

10. Page #: _____

11. Section : ________
    1. front section (news)
    2. metro/local
    3. editorial
    4. others

12-14. Type of content: __________
    1. debate
    2. speech
    3. advertising
    4. interview/statement
    5. game: poll/strategy/endorsement/running mate
    6. performance/record
    7. analysis/editorial
    8. others

Ideological Spectrum

Ideology: (self-claim)	1------2------3------4------5		n/a (9)
	1. extremely liberal		5. extremely conservative
Abortion:	1------2------3------4------5		n/a (9)
	1. no restriction on abortion		5. oppose all abortion
Labor:	1------2------3------4------5	n/a (9)	
	1. strongly support labor/union	5. strongly anti-labor	
Crime Punishment:	1------2------3------4------5		n/a (9)
	1. lenient punishment; (focus on prevention, e.g. social programs) (society's fault)	5. severe punishment e.g. the death penalty (criminals' personal responsibility)	
Gender equality:	1------2------3------4------5		n/a (9)
	1. women are/ should be equal		5. Place is at home/ implying inferiority

Racial Equality:	1------2------3------4------5	n/a (9)	1. pro-minority rights/treatments e.g. affirmative action	5. anti-favorable treatments/ rights
Business:	1------2------3------4------5	n/a (9)	1. highly anti-business in general	5. highly pro-business in general
Environment:	1------2------3------4------5	n/a (9)	1. earth absolutely first; strong environ. protection	5. little/no consideration on environ. protection
Government involvement:	1------2------3------4------5	n/a (9)	1. more govt's involvement/ regulation	5. "small government;" little or no govt. involvement/regulation; autonomy
Health care/ insurance:	1------2------3------4------5	n/a (9)	1. total government run/ controlled system	5. total privately run system
Military spending:	1------2------3------4------5	n/a (9)	1. greatly decrease	5. greatly increase
Taxation	1------2------3------4------5	n/a (9)	1. much higher in general	5. much lower
Welfare:	1------2------3------4------5	n/a (9)	1. greatly expand the system	5. greatly reduce/ abolish the system
Gay rights:	1------2------3------4------5	n/a (9)	1. strongly support	5. strongly anti-

Table I

Difference between the Center Means
(Ideological Positions from the Center)
of the Winners & the Losers in the Colorado Election

	No. of cases	Mean	Stand. Dev.	SE of Mean
Winner	14	.595	.598	.160
Loser	12	1.097	.452	.130

t=-2.382-tailed p< .05

Table II

Difference between the Center Means
(Ideological Positions from the Center)
of the Winners & the Losers in the Florida Election

	No. of cases	Mean	Stand. Dev.	SE of Mean
Winner	15	.685	.445	.115
Loser	22	1.132	.507	.108

t=-2.77 2-tailed p< .01

Table III

Difference between the Center Means
(Ideological Positions from the Center)
of the Winners & the Losers in the California Election

	No. of cases	Mean	Stand. Dev.	SE of Mean
Winner	10	.583	.663	.210
Loser	13	1.058	.390	.108

t=-2.15 2-tailed p< .05

Table IV

Difference between the Center Means
(Ideological Positions from the Center)
of the Winners & the Losers in the Minnesota Election

	No. of cases	Mean	Stand. Dev.	SE of Mean
Winner	19	.500	.580	.133
Loser	17	1.329	.398	.096

t=-4.95 2-tailed p< .01

Table V

Difference between the Center Means
(Ideological Positions from the Center)
of the Winners & the Losers in the Massachusetts Election

	No. of cases	Mean	Stand. Dev.	SE of Mean
Winner	27	.570	.560	.108
Loser	26	1.097	.369	.072

t=-4.03 2-tailed p< .01

Table VI

Difference between the Center Means
(Ideological Positions from the Center)
of the Winners & the Losers in the Five Elections

	No. of cases	Mean	Stand. Dev.	SE of Mean
Winner	85	.580	.555	.060
Loser	90	1.144	.426	.045

t=-7.56 2-tailed p< .01

TABLE VII
A comparison between the winner/ loser and the public opinion in the Colorado Gubernatorial

	Ideo logy	Crim Puni	Gend Equa	Raci Equa	Govt Invo	Heal Insu	Milt Spen	Welf Poli	Issue Mean	Centre Mean
Winner2.50	3.43	2.00	3.00	3.33	.	2.00	.	2.88	.60	
Loser	4.00	4.00	4.00	3.00	4.20	.	5.00	4.00	3.99	1.10
Public 2.81	3.01	1.39	3.20	3.49	2.77	2.24	3.17	2.94	.06	
	*	*	*		*	n/a	*	n/a	*	*

* denotes a closer distance between the ideology of winner and the public opinion
n/a -- cannot be compared

TABLE VIII
A comparison between the winner/ loser and the public opinion in the Florida Gubernatorial

	Ideo logy	Crim Puni	Gend Equa	Raci Equa	Govt Invo	Heal Insu	Milt Spen	Welf Poli	Issue Mean	Centre Mean
Winner2.00	3.29	2.00	2.00	3.00	2.25	.	2.33	2.61	.68	
Loser	4.20	4.67	4.00	3.00	4.00	4.00	.	4.67	3.95	1.13
Public 3.24	2.88	1.99	3.38	3.49	3.08	2.89	2.97	3.06	.06	
		*	*		*	*	n/a	*	*	*

* denotes a closer distance between the ideology of winner and the public opinion
n/a -- cannot be compared

TABLE IX
A comparison between the winner/ loser and the public opinion in the California Gubernatorial Campaign

	Ideo logy	Crim Puni	Gend Equa	Raci Equa	Govt Invo	Heal Insu	Milt Spen	Welf Poli	Issue Mean	Centre Mean
Winner.	5.00	.	3.50	3.00	.	4.00	4.00	3.32	1.33	
Loser	.	4.20	2.00	2.00	2.83	.	4.00	.	2.87	.58
Public	3.02	3.04	1.62	3.20	3.27	2.97	2.56	3.15	2.99	.01
	n/a		n/a	*	*	n/a	n/a	n/a	*	*

* denotes a closer distance between the ideology of winner and the public opinion
n/a -- cannot be compared

TABLE X
A comparison between the winner/ loser and the public opinion in the Minnesota Gubernatorial Campaign

	Ideo logy	Crim Puni	Gend Equa	Raci Equa	Govt Invo	Heal Insu	Milt Spen	Welf Poli	Issue Mean	Centre Mean
Winner	1.00	3.67	.	.	3.00	2.50	.	3.50	2.95	.50
Loser	1.33	.	1.50	1.00	2.00	1.20	.	1.75	1.95	1.33
Public	3.34	2.92	1.81	3.36	3.04	2.99	2.56	3.09	3.07	.07
		n/a	n/a	n/a	*	*	n/a	*	*	*

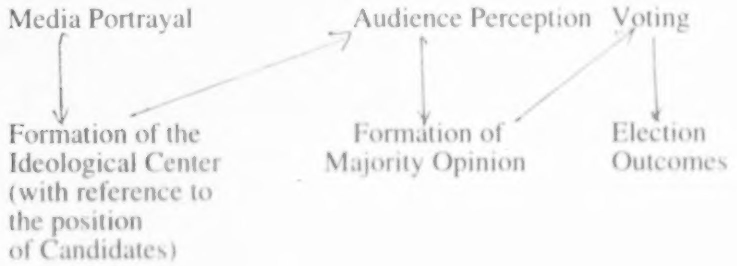
* denotes a closer distance between the ideology of winner and the public opinion
n/a -- cannot be compared

TABLE XI
A comparison between the winner/ loser and the public opinion in the Massachusettes Gubernatorial Campaign

	Ideo logy	Crim Puni	Gend Equa	Raci Equa	Govt Invo	Heal Insu	Milt Spen	Welf Poli	Issue Mean	Centre Mean
Winner	3.02	4.18	2.00	2.50	3.00	3.00	.	3.78	3.24	.57
Loser	3.14	4.83	.	.	2.56	1.00	.	3.70	3.09	1.10
Public	3.02	3.04	1.62	3.20	3.27	2.97	2.56	3.15	2.86	.14
	*	*	n/a	n/a	*	*	n/a		*	*

* denotes a closer distance between the ideology of winner and the public opinion
n/a -- cannot be compared

Figure I
Process of Media and Public Opinion Interactions


Media Portrayal
Audience Perception
Voting
Formation of the Ideological Center (with reference to the position of Candidates)
Formation of Majority Opinion
Election Outcomes

ENDNOTES

1. They found that audience converges on education, pollution, housing and poverty.

2. For a thorough overview and critique of Downs' models and Downsian scholars' work, please see Page (1978), chapter 2.

3. Surveys conducted by the Survey Research Center/Center for Political Studies at the University of Michigan, which are considered the authority on election survey studies in the U.S.

4. The Directional Theory suggests that 1) if more voters are on one side of the neutral point, the candidate who is on the dominant side will win; 2) when the electorate has a clear preference of policy, a candidate should be as aggressive as possible on this side of spectrum, but still within the region of acceptability. In other words, this theory suggests that candidates receive little reward for being centrist. If voters are evenly divided, an extreme position (if it remains within the region of acceptability), is "competitive with a centrist strategy." According to this theory, in a conservative state, a candidate should be as conservative as possible. The authors mentioned a few congressional campaigns to support their theory, such as the 1984 senatorial campaign in North Carolina in which Jesse Helms won. They also cited few studies analyzing the ideology of House representatives, saying the law makers were usually more extreme than the mean voters. We question whether a handful of campaigns are sufficient enough to disprove the centrist strategy. Also, as the present study implies, even if candidates' real stands are extreme, the media may still portray them as centrists, which could lead to their victory.

5. The 10 items are: crime prevention, integrity and honesty in government, the Republican party, inflation, the Democratic party, the Democratic candidate, campaign reform, busing, the Republic candidate, and "me," which is a voter's position on each scale.

6. For example, the statement "Issue A and Issue B are 10 political inches apart" suggests a spectrum or scale.

7. Although not directly related to the present study (center and distribution of ideological issue positions), for a detailed review of the definition of the political center in European party systems, see Daalder (1984).

8. The multi-dimensional spatial model of measurement could be a good attempt to tackle the problems of weighing and the inter-relationships between issues and other variables, as illustrated in the study by Barnett et al. (1976).

9. They included government spending and services, defense spending, government's involvement in job and standard of living, aid to minorities, and women's status. The median voter's stands were either on or very close to the mid-points of the scales. The only exception was women's status in 1988, which is close to point 1.

10. The authors would like to thank Professor William Flanigan for providing the NES data and codebooks.

11. Like the 1988 data, the only exception was women's status, of which the mean was very close to point 1 (i.e. men and women should be equal). Many other issues were not measured with scales in the National Election Studies (Flanigan 1992). In addition, although the issues mentioned showed slightly skewed distributions, the curves suggested that they were close to normal distributions. The peaks of the curves were close to the centers of each scale. In other words, most people's issue positions were close to the center. As a result, candidates appeared to be centrist were likely to win.

12. The construction of the left-right scales and definitions of their position points utilized information from Jamieson (1992a), Parenti (1988), Jennings (1992), Smith (1990), Weaver et al. (1981), Political parties of the world (1984), Asher (1992), Goldfarb (1991), Page (1978), and Flanigan (1988 1992).

13. Direct mention of ideological stands, such as being a liberal or conservative, was not considered as an issue, but was included in the calculation of "center means" and "issue means."

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14. The center mean and issue mean were calculated independently; otherwise, the results would be misleading. For example, if the center mean was directly translated into issue mean, a 2 and 4 would yield an issue mean of 3, which would be a center mean of 0. However, calculations were performed to translate 2 and 4 into a center score of 1 twice, and the center mean was 1.
15. Future studies may want to investigate the methodological aspect in order to test the center-seeking hypothesis with more scrutiny and accuracy. For example, it would be ideal to examine press coverage of campaigns in more states and in different levels of campaigns. This can avoid the possibility of a historical tendency in some states to be more liberal or conservative. The effect of presidential campaigns may also be more prominent for it covers a even wider range of voters and hence a greater tendency of center-seeking. An examination of papers with national circulation might cover issues that are of national concern during the campaign in addition to the uniqueness of the issues in a local political environment.